BRIDGEND PAPER MILL

Application for a Variation to Environmental Permit

Number EPR/EP3738NG

02 February 2021

Document History

Version	Status / Purpose	Author	Date
1	Submission	WEPA / PCU /bhm	2 February 2021

CONTENTS

NON-TECHNICAL SUMMARY

WEPA UK Ltd currently operates a paper mill and converting facility, a Combined Heat and Power Plant (CHP) and an effluent treatment plant (ETP) at Llangynwyd in the Llynfi Valley in South Wales approximately 5km south of Maesteg and 10km north of Bridgend. Situated in a semi-rural location, papermaking at the installation has been established since 1950. The existing Bridgend Paper Mill will continue to operate as per the conditions of the existing Environmental Permit. Therefore, discussion of the existing Installation has not been included in any significant detail in this application.

This document provides the formal application on behalf of WEPA UK Limited for a substantial variation to the existing Environmental Permit for the Bridgend Paper Mill (hereafter referred to as the Paper Mill).

In 2020, WEPA UK have been granted planning permission for the construction of a second tissue paper machine and associated development at their site in Bridgend. The new paper machine (called 'Neptune') will produce tissue paper only and it will have a theoretical maximum capacity of approximately 250 tonnes/day. The average daily output is expected to be approximately 206 tonnes/day. The annual capacity of the installation is approximately 75,000 tonnes of paper product per annum.

A brief description of the proposed development follows:

Pulp is dissolved using water. Fibre in the pulp can be either fresh (virgin fibre) or derived from recycled paper (broke fibre). The virgin fibre usually derives from wood, although it can also originate from e.g. straw or sugar cane residue. The stock is then passed through basic cleaning systems prior to being mixed and fed to the paper machine. When the stock enters the machine, it comprises more than 99 per cent of water and less than one per cent of fibre. The mixed paper stock is fed to the papermaking machine which is designed to continuously produce a cohesive web of fibre, forming a wet sheet of paper tissue. Once the initial wet sheet is formed, the paper is passed through the drying section which is made up of a series of steam heated cylinders to dry the paper. The creped structure of the tissue paper is achieved when the paper web is scraped from the drying cylinder using a steel blade. At the end of the drying process the continuous paper sheet is wound onto a reel. When the reel is full, the sheet is spliced onto the next reel so that continuous paper production is achieved without stopping to change from one reel to the next.

The existing installation includes a CHP power plant with a net thermal input of approximately 50 MW which supplies the entire steam demand of the papermaking operation and approximately 50% of the electrical power of the mill. The CHP plant is natural gas fired with the capacity for supplementary gas oil firing. The plant comprises of two gas turbines with a single 37m stack and a shell boiler with a 30m stack. The current CHP plant has the capacity to meet the additional energy demand of the new paper machine (approximately 5,800 kW / h, i.e. approx. 51 GWh / a).

Air dispersion modelling results indicate that, even if worst case emission and dispersive conditions coincided consistently, predicted ground level concentration near the proposed development would not exceed any of the objectives nitrogen dioxide and carbon monoxide UK Air Quality Regulations, either in isolation or in conjunction with estimated maximum background pollutant levels. Consequently, the modelled pollutants emitted from the new development are unlikely to have a significant environmental or health

impact on the surrounding community. No significant impact on a European Site is predicted to occur resulting from operation of the new development alone or in-combination with other projects in the region. Emissions from the installation are continuously monitored to ensure ongoing compliance with Environmental Permitting Regulations.

Noise emissions generated during operation and start-up have been assessed as part of this application. Noise levels recorded at representative local residences have been determined to be within appropriate guideline values.

The paper mill uses freshwater in the production process for stock preparation and process water. Based on a fresh water consumption of 6.5 m^3 per tonne of finished product, the new paper machine 'Neptune' will require approximately 488,000 m^3 of freshwater per year. Freshwater for papermaking is abstracted from the River Llynfi and the Nant Gwyn Stream.

The Mill operates a biological treatment plant utilising activated sludge. Water demand for the papermaking operations is supported by a recycling process at the ETP. All papermaking process wastewater is subject to treatment at the ETP before discharge in to the River Llynfi. The quality of the discharge is strictly controlled with limits for suspended solids, BOD, pH and temperature amongst others.

The increase in production will result in a change in the demand for water and a change in the effluent produced. Any associated change in abstraction and discharge volumes will be accommodated within existing permit allowances and the current on-site effluent treatment plant has sufficient capacity to receive and treat the projected flows.

The surface water drainage system of the new facility will be connected to the existing drainage system of the site.

The sludge produced during the paper making process (as waste product) is collected, properly treated and reintroduced in the paper production process itself. The excess sludge that cannot be reintegrated is dried and used to make alternative agricultural products.

The mill operates a local Environmental Management System (EMS) which is fully integrated and certified to ISO14001:2015. With the proposed substantial change, the operator would review and update local procedures within the EMS.

The new paper machine utilises the best available techniques (BAT) for the sector.

SECTION 1

INTRODUCTION

1 Introduction

1.1 Application Overview

1.1.1 The WEPA Group is one of the leading private-label specialists in the consumer market. The company is a growing consumer business specialised in selling a broad range of paper products consisting of baking paper, stationery, art paper, sandwich and lining paper.

1.1.2 The paper mill currently produces approximately 50,000 tonnes of paper with its existing tissue paper machine (called “Jupiter”) as well as approximately 80,000 tons of finished goods. This means that the site in Bridgend currently imports and holds in storage approximately 30,000 tonnes of paper from other paper suppliers. When the CNV waste factor is added to jumbo reel requirements, the business needs to purchase approximately 34,000 tons of jumbo reel to supply the Bridgend converted volume. A further 8,000 tons of paper will be supplied to another converter to produce a customer’s volumes, making 42,000 tons of purchased jumbo reel.

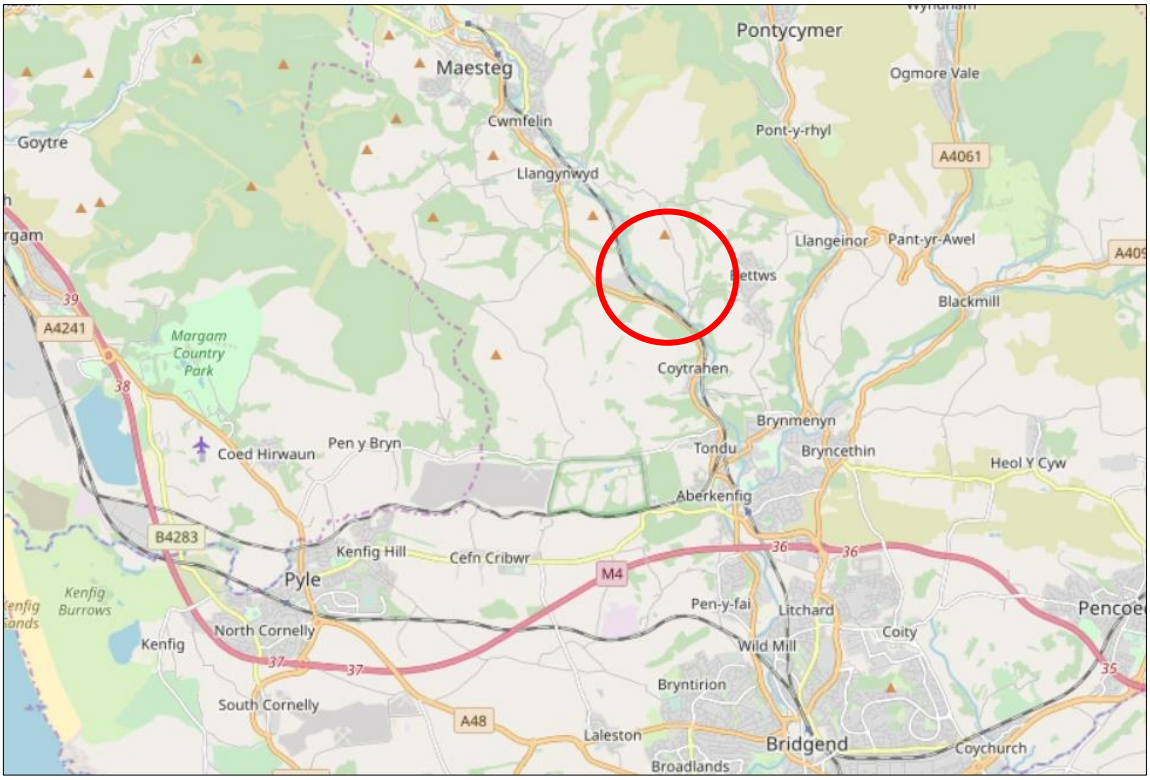
1.1.3 By 2021 this 42,000 tons of jumbo reel is expected to have increased towards the 50,000 tons per year level for the UK consumer business that cannot be produced in the UK by WEPA. This paper will be purchased at a significant annual cost which would be eliminated by producing in-house with a new paper machine.

1.1.4 WEPA UK, therefore, decided to construct a second tissue paper machine (called ‘Neptune’) and associated development at their site in Bridgend. The new paper machine will produce tissue paper only and will have a theoretical maximum capacity of approximately 250 tonnes/day. The average daily output is expected to be approximately 206 tonnes/day, which would amount to an average annual output of 75,000 tonnes.

Site Location

1.1.5 The proposed development is located on the site of the existing Bridgend mill site approximately 5 km to the north of Bridgend town centre, in an area bound to the south and to the west by the A4063, to the east by the River Llynfi, and to the north by open farmland (Figure 1-1). The site is orientated along its long axis in an approximate west to east direction and it is accessed via the A 4063 (Bridgend Road) between Maesteg and Coytrahen, with traffic generally proceeding south towards the M 4. The Bridgend site covers a total area of around 25 hectares of which buildings and other hardstanding areas extend to approximately 15 ha (Appendix 1 and 2.

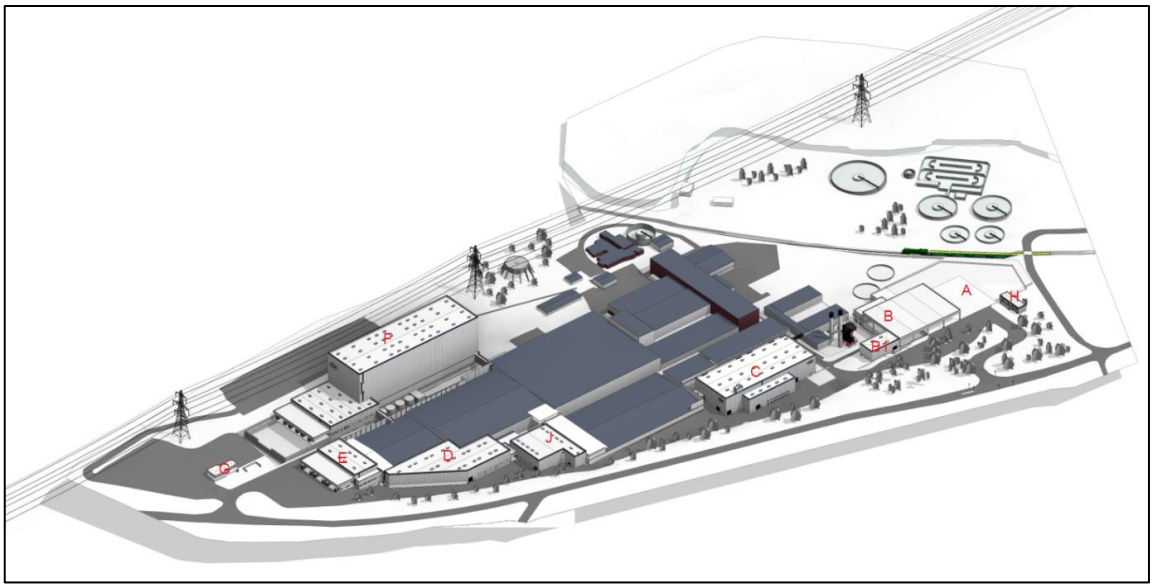
Figure 1-1: Site Location



Source: Open Street Maps

1.1.6 The new paper machine is centred on approximate National Grid Reference X: 287870, Y: 187088. The location of the proposed paper machine is within the existing WEPA UK site boundary, situated adjacent the existing machine 'Jupiter', as shown on Figure 1-2 and Appendix 5.

Figure 1-2: Site overview



Existing buildings in grey; new buildings in white

Site Layout

1.1.7 The new development will be in 3 phases and within the curtilage of the existing permit boundary (Appendix 5, 8 and 9). It would include the following buildings:

Table 1-1: Approximate building footprints and heights

Department	Constr. Phase
Dept. A - Pulp Storage	1
Dept. B - Bale Handling	1
Dept. B1 - Sludge Press	1
Dept. C - PM Hall	1
Dept. D - Converting	2
Dept. E - Shipping Area, incl. canopy	2
Dept. F - High Bay Storage	3
Dept. F - Shipping Area, including canopy	3
Dept. F - Office	3
Depot G - Gatehouse	3
Depot I - Pipe Bridge	1
Depot J – Jumbo Reel Storage (JRS), canopy	2
Dept. T - Temporary Parent Reel Storage	1
JR Transport Canopy	2
Parking + Canopy Walkway	3

1.1.8 As the buildings of Phase 3 are expected to be constructed at a later stage, this application for a substantial variation only includes Phase 1 and 2 of the development.

Process description

1.1.9 Pulp is dissolved using water. Fibre in the pulp can be either fresh (virgin fibre) or derived from recycled paper (broke fibre). The virgin fibre usually derives from wood, although it can also originate from e.g. straw or sugar cane residue. The stock is then passed through basic cleaning systems prior to being mixed together and fed to the paper machine. When the stock enters the machine, it comprises more than 99 per cent of water and less than one per cent of fibre. The mixed paper stock is fed to the papermaking machine which is designed to continuously produce a cohesive web of fibre, forming a wet sheet of paper tissue. Once the initial wet sheet is formed, the paper is passed through the drying section which is made up of a series of steam heated cylinders to dry the paper. The creped structure of the tissue paper is achieved when the paper web is scraped from the drying cylinder using a steel blade. At the end of the drying process the continuous paper sheet is wound onto a reel. When the reel is full the sheet is spliced onto the next reel so that continuous paper production is achieved without stopping to change from one reel to the next.

More detailed process descriptions are included in Appendices 3 and 7.

Energy

1.1.10 The existing installation includes a CHP power plant with a net thermal input of approximately 50 MW which supplies the entire steam demand of the papermaking operation and approximately 50% of the electrical power of the mill. The CHP plant is natural gas fired with the capacity for supplementary gas oil firing. The plant comprises of two gas turbines with a single 37m stack and a shell boiler with a 30m stack. The current CHP plant has the capacity to meet the additional energy demand of the new paper machine (approximately 5,800 kW / h, i.e. approx. 51 GWh / a).

Water

1.1.11 The paper mill uses freshwater in the production process for stock preparation and process water. Based on a fresh water consumption of 6.5 m^3 per tonne of finished product, the new paper machine development will require approximately 488,000 m^3 of freshwater per year. Freshwater for papermaking is abstracted from the River Llynfi and the Nant Gwyn Stream. The Mill operates a biological treatment plant utilising activated sludge. Water demand for the papermaking operations is supported by a recycling process at the ETP. All papermaking process wastewater is subject to treatment at the ETP before discharge in to the River Llynfi.

Chemical Additives

1.1.12 To improve the product properties and the production efficiency various chemical additives are applied in the process. Generally, chemical usage can be classified according to the following categories:

- Process Aids: facilitate the operation of the paper production process in order to improve production efficiency and throughput.
- Product Aids: are applied to optimise the specific properties of the paper according to the product requirements.

Waste Arisings

1.1.13 The principal waste arising from the operation of the plant include:

- Filters on air intakes will require changing periodically,
- Lighting units replaced as required,
- Waste from staff rooms etc.,
- Oily sludge from cleaning of oil interceptors,
- Waste oils and lubricants; oil residues arising from maintenance activities,
- Packaging waste (timber, cardboard, plastic etc.).
- Sludge form waste water treatment

1.1.14 Waste generated during annual outages varies according to the scope of the outage works, and consist mainly of oil residues and scrap metals. The quantities of waste generated are relatively low. Waste will be segregated and stored in labelled containers until disposal off-site by a qualified contractor.

1.1.15 The sludge produced during the paper making process (as waste product) is collected, properly treated and reintroduced in the paper production process itself. The excess sludge that cannot be reintegrated is dried and used to make alternative agricultural products.

Waste Water Treatment Plant (WWTP)

1.1.16 The current effluent treatment system installed in 1991 has the capacity and capability to serve the new PM in addition to the current PM. A large part of the total amount of water needed for the tissue paper making process will be made available through intensive wastewater treatment, thus significantly reducing the total amount of fresh water taken from the River Llynfi. The treatment technology can be considered a suitable and well proven method. The plant uses the biological oxygen demand (BOD) process, which remains best available technology. For the biological process, the wastewater has to be conditioned, i.e. additional nutrition like nitrogen and phosphor has to be added to the water coming from the production plant. Any excess water will be discharged to the River Llynfi via the existing effluent treatment plant (Appendix 19).

1.1.17 The plant design capabilities are as follows:

Average flowrate	-	18200m³/day
Maximum flowrate	-	27300m³/day
Peak hourly flowrate	-	1136m³/hr
Average BOD loading	-	1273Kg/day
Maximum BOD loading	-	3363Kg/day
Average Suspended Solids	-	546Kg/day

1.1.18 The overall discharge from Bridgend Paper Mill, including two paper machines, will amount to 3,954 m³ / day (maximum flow rate). Compared to the permitted maximum flow rate of the 27,300 m³/day, the utilisation rate of the WWTP's capacity would be approximately 15 %.

1.1.19 Based on the overall water mass balance (Appendix 14) the following table summarises existing and new discharge volumes.

Table 1-2: Overview waste water discharge volumes (expressed as m³/day)

Jupiter paper machine		2342
Cooling water	1045	
Process water	1297	
Neptune paper machine		972
Cooling water	243	
Process water	729	
Total Bridgend Paper Mill		3,314
Emission limits in existing permit *		17,500

*at 25 °C

Surface Water Drainage System

1.1.20 To prevent possible contamination and ensure the discharge of clean water, the drainage system is connected with the WWTP for some of the external areas where residue pulp might be present and collected within the rain water (Appendix 24).

1.1.21 Based on the calculation of 1,440 minutes of a 100-year winter (+40 % climate change), the maximum volume of rain water to be discharged is 1,299.8 m^3/day.

Current maximum amount treated (including rainwater):	8,840 m^3/day
New Neptune machine water use:	1,430 m^3/day
Additional drainage water (100-year winter + 40% c.c.):	1,300m^3/day
Total:	11,570 m^3/day
Maximum Flowrate Plant capability:	27,300 m^3/day

1.1.22 The paper mill's Waste Water Treatment Plant has sufficient capability to treat the additional water required and waste water produced by the second paper machine 'Neptune' (Appendix 19).

1.2 Planning Status

1.2.1 On the 6 February 2020 WEPA UK made application for permission to develop the expansion of current operation including an extension for a new paper machine and stock preparation area, new converting and warehouse facilities and ancillary buildings. Planning Permission was granted on the 23 September 2020 (Planning Reference No.: P/20/119/FUL) (Appendix 29).

1.3 Purpose of this document

1.3.1 The existing Bridgend Paper Mill will continue to operate as per the conditions of the existing Environmental Permit Number EPR/EP 3738NG. This application report is intended to provide details of the proposed substantial variation required to accommodate the second paper machine and associated facilities only. Therefore, discussion of the existing paper mill has not been included in any significant detail in this application.

1.3.2 In order to provide all the relevant information with which NRW can determine this application, this document provides the following:

a Application Forms:

- Form A - About You
- Form C2 - General – Varying a Bespoke Permit
- Form C3 - Variation to a Bespoke Installation Permit; and
- Form F1 - OPRA, Charges and Declarations

b Supporting Information; and

c Proposed Improvement Plan including suggested improvement conditions that the Applicant considers should be included in the final Environmental Permit.

SECTION 2

APPLICATION FORMS

2 Application Forms

2.1 Part A – About You

Application for an environmental permit: Part A – About you

Fill in this part A if you are applying for a new permit, applying to change or surrender an existing permit, or want to transfer an existing permit to yourself.

Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that come with it. All relevant guidance documents can be found on our website.

Where you see the term 'document reference' on the form, give the document references and send the documents with the application form when you've completed it.

Contents

1 About you

Are you applying as an individual, an organisation of individuals (for example, a partnership), a company (this includes Limited Liability Partnerships) or a public body?

An individual	☐	*Go to section 2*
An organisation of individuals (for example, a partnership)	☐	*Go to section 3*
A public body (such as a local council)	☐	*Go to section 4*
A registered company or other corporate body	☒	*Go to section 5*

2 Applications from individuals

2a Please give us the following details

Title

First name

Last name

Go to section 6

3 Applications from organisations of individuals

3a Organisation details

Organisation name

Type of organisation

If 'Other', please specify

3b Main representative's details

Title

First name

Last name

3c Second representative's details:

Title

First name

Last name

3d Other representative's details

If relevant, please provide details of all other representatives on a separate sheet and tick here to show that you have done so. ☐ *Go to section 6*

4 Applications from public bodies

4a Public body details

Public body name

Type of public body

If 'Other', please specify

4b Executive officer's details

The executive is an officer of the public body authorised to sign on your behalf.

Title

First name

Last name

Position *Go to section 6*

5 Applications from a registered company or other corporate body

5a Company details

Company name WEPA UK L

Company registration number 08347876

Date of registration 04/01/2013

If you are applying as a corporate organisation that is now a limited company, please provide evidence of your status and tell us the reference number you have given this document with this evidence.

Document reference *Go to section 6*

6 Your address

6a Your main (registered office) address

For companies this *must* be the address on record at Companies House.

Address 4 Bridgend Paper Mill

Llanggynwyd

	Bridgend
	Mid Glamorgan, South Wales
Postcode	CF34 9RS
Telephone - mobile	
Telephone - office	+44 1656 684662
Email address	info@wepa.co.uk

If you are applying as an organisation of individuals, every partner needs to give us their details, including their title. If necessary, continue on a separate sheet and tell us the reference you have given the sheet.

Document reference	

6b UK business address *only* if different from above

Address	
Postcode	
Telephone - mobile	
Telephone - office	
Email address	

Go to section 7

7 Contact details

7a Who can we talk to about your application?

This can be someone acting as a consultant or ‘agent’ for you.

Title	Mr
First name	Richard
Last name	Lewis
Address	Bridgend Paper Mill
	Llanggynwyd, Bridgend
	Mid Glamorgan

	South Wales
Postcode	CF34 9RS
Telephone - mobile	+44 7816 109584
Telephone - office	+44 1656 684662
Email address	richard.lewis@wepa.co.uk

7b Who can we talk to about your operation?

Same as the application contact in 7a	☒
Title	
First name	
Last name	
Address	
Postcode	
Telephone - mobile	
Telephone - office	
Email address	

7c Who can we talk to about your billing or invoice?

Same as the application contact in 7a	☒
Same as the operation contact in 7b	☐
Title	
First name	
Last name	
Address	

Postcode	
Telephone - mobile	
Telephone - office	
Email address	

2.2 Part C2 – General – Varying a Bespoke Permit

Application for an environmental permit:
Part C2 – General: Varying a bespoke permit

Fill in this part of the form, together with part A, the relevant parts of C3 to C7 and part F1 or F2.

Please check that this is the latest version of the form available from our website.

Note: If you are applying to convert your existing permit to a standard permit or add a standard facility you need to fill out form C1.

If you want to make an administrative change, you should complete form C0.5.

You only need to give us details in this application for the parts of the permit that will be affected (for example, if you are adding a new facility or changing existing ones).

You do not need to resend any information from your original permit application.

Please read through this form and the guidance notes that came with it. All relevant guidance documents can be found on our website.

Contents

1 About the permit

1a Discussions before your application

If you have had discussions with us before your application, give us the case reference number or details on a separate sheet.

Case or document reference	APPENDIX 31

1b Permit number

Permit number this application relates to?	EPR/EP3738NG

1c Site details

What is the name, address and postcode of the site?

Site name	Bridgend Paper Mill
Address	4 Bridgend Paper Mill
	Llangynwyd
	Bridgend
Postcode	CF34 9RS

2 About your proposed changes

2a Type of variation

What type of variation are you applying for? (Please tick)

Standalone water discharge activity or point source groundwater activity	☐
Minor technical	☐

Normal variation ☐

Substantial ☒

2b Provide a non-technical summary of your application

Please give us brief details of all the proposed changes to current activities, and any new activities you want to add to your permit.

You can use the box below, in Table 1 below. Or, you can use a separate sheet and send it to us with your application form. Tell us below the reference you have given this document.

Document reference: APPENDICES 3, 4 AND 5

Table 1 – Details of the proposed changes

WEPA UK apply for the construction of a second tissue paper machine and associated development at their site in Bridgend. The new paper machine (called 'Neptune') will produce tissue paper only and it will have a theoretical maximum capacity of approximately 250 tonnes/day. The average daily output is expected to be approximately 206 tonnes/day. The annual capacity city of the installation is approximately 75,000 tonnes of paper product per annum. Based on a fresh water consumption of 6.5 m^3 per tonne, the new paper machine development will require approximately 488,000 m^3 of freshwater per year. Freshwater for papermaking is abstracted from the River Llynfi and the Nant Gwyn Stream. The increase in production will also result in a change in the effluent produced. Any associated change in abstraction and discharge volumes will be accommodated within existing permit allowances and the current on-site effluent treatment plant has sufficient capacity to receive and treat the projected additional flows. The current CHP power plant has the capacity to meet the additional energy demand of the second paper machine (approximately 5,800 kW / h, i.e. approx. 51 GWh / a).

2c Consolidating existing permits into the modern style

Consolidating you permit can mean:

- combining the original permit and all subsequent changes into a single document (modern permit), or

- combining two or more environmental permits for the same operator and site into a single permit.

Note: In both cases we may require additional information from you about, for example your management system. Therefore we would always advise you to talk to us before you submit any application to modernise or consolidate permits.

2c1 Do you want to have a modern style (consolidated) permit?

No ☐ *Go to section 2d*

Yes ☐ *Please note: An additional charge may apply for modernising your permit(s).*

2c2 Identify all the permits you want to consolidate by listing the permit numbers/ versions in Table 2 below.

Table 2 – Permit numbers

2d Low impact installations (installations only)

Are any of the regulated facilities low impact installations?

No ☒ *Go to section 2e*

Yes ☐

Please give us a description of your proposed activity telling us how you meet the conditions for a low impact installation and send it to us with your application form.

Document reference

Tick the box to confirm you have filled in the low impact installation checklist in Appendix 1 for each regulated facility. ☐

2e Treating batteries

Are you planning to treat batteries? (See the guidance notes on part C2.)

No ☒

Yes ☐ Tell us how you will do this, send us a copy of your explanation and tell us the reference you have given this explanation.

Document reference

2f Medium Combustion Plant

Are you applying to *add* additional new Medium Combustion Plant(s) to your existing permit

No ☒

Yes ☐ Please complete Table 3 below

Table 3 – Adding Additional Medium Combustion Plant		
	Number Currently permitted for	**Number you wish to add**
Medium Combustion Plant		

Please complete Appendix 8 of Form C3 for each new Medium Combustion Plant you wish to add.

2g Combined Medium Combustion Plant and Specified Generators

2g1 Are you applying to add a Specified Generator to your existing permit?

No ☐ *Go to section 3*

Yes ☐ *Go to section 2g2* and complete Appendix 9 of Form C3 for each generator that comprises the Specified Generator.

2g2 Is the Specified Generator also a new Medium Combustion Plant?

No ☐

Yes ☐ Please complete Appendix 8 and Appendix 9 of Form C3 for each new Medium Combustion Plant you wish to add that is also a Specified Generator.

3 Your ability as an operator

If you are only applying to change or add a water discharge activity, you only have to fill in question 3d.

If you are applying to add waste installations or waste operations to a permit that has not previously had them, you need to fill in all of section 3.

If you are applying to consolidate two or more permits or have an updated permit you must fill in question 3d.

3a Relevant offences – installations, waste operations, medium combustion plant and specified generators (See guidance notes on part C2)

Have you, or any other relevant person, been convicted of any relevant offence?

No ☒ *Go to section 3b*

Yes ☐ Please give details below

Title	
First name	
Last name	
Date of birth (DD/MM/YYYY)	
Position held at the time of the offence	
Name of the court where the case was dealt with	
Date of conviction (DD/MM/YYYY)	
Offence and penalty set	
Date any appeal against the conviction will be heard (DD/MM/YYYY)	

If necessary, use a separate sheet to give us details of other relevant offences, and tell us below the reference number you have given the extra sheet.

Document reference	

3b Technical ability - relevant waste operations only (see the guidance notes on part C2)

3b1 Which approved scheme are you using to show you have the suitable technical skills and knowledge to manage your facility?

CIWM / WAMITAB ☐

ESA / EU ☐

3b2 Do you already hold the relevant, formal qualifications to manage your facility?

Yes ☐ Tick to confirm you've included all original *and* continuing competence evidence. ☐

No ☐ Tick to confirm you've included evidence you've registered with a Scheme. ☐

3c Finances (installations, waste operations, mining waste operations, medium combustion plant and specified generators)

Do you or any relevant person have current or past bankruptcy or insolvency proceedings against you?

No ☒ *Go to section 3d.*

Yes ☐ Please give details of the required set-up (including infrastructure), maintenance and clean up costs for the proposed facility, against which a credit check may be assessed.

Please note: We may want to contact a credit reference agency for a report about your business's finances.

Landfill, Category A mining waste facilities and mining waste facilities for hazardous waste only

How do you plan to make financial provision (to operate a landfill or a mining waste facility you need to show us that you are financially capable of meeting the obligations of closure and aftercare)?

Bonds ☐

Escrow account ☐

Trust fund ☐

Lump sum ☐

Other ☐

Provide a plan of your estimated expenditure on each phase of the landfill or mining waste facility.

Document reference

3d Management systems (all)

You can find guidance on management systems in both 'How to Comply' and 'Horizontal Guidance Note 6 – Environmental Management Systems'. We have also developed environmental management toolkits for some business sectors which you can use to produce your own management system. You can get these by calling 0300 065 3000 or by downloading them from our guidance webpages.

3d1 Does your management system meet the conditions set out in our guidance?

Yes ☒

No ☐

3d2 What management system will you provide for your regulated facility?

EC Eco-Management and Audit Scheme (EMAS) ☐

ISO 14001 ☒

BS 8555 (Phases 1–5) ☐

Green Dragon ☐

Own management system ☐

3d3 Make sure you include a summary of your management system which sets out any changes or additional measures you will put in place to the address risks from the proposed changes. Tick the box to confirm you've done this and tell us the reference below. ☐

Document reference APPENDICES 10 AND 11

Water discharge activities: *Go to section 5.*

4 Consultation (fill in 4a to 4c for installations and waste operations and 4d for installations only)

Could the waste operation or installation involve releasing any substance into any of the following?

4a A sewer managed by a sewerage undertaker

No ☒

Yes ☐ Please name the sewerage undertaker

4b A harbour managed by a harbour authority

No ☒

Yes ☐ Please name the harbour authority

4c Direct into relevant territorial waters or coastal waters within the sea fisheries district of a local fisheries

No ☒

Yes ☐ Please name the fisheries committee

4d Is the installation on a site for which:

4d1 a nuclear site licence is needed under section 1 of the Nuclear Installations Act 1965?

No ☒

Yes ☐

4d2 a policy document for preventing major accidents is needed under regulation 5 of the Control of Major Accident Hazards

No ☒

Yes ☐

5 Supporting information

5a Provide a plan or plans for the site (see guidance notes on part C2 for what needs to be marked on the plan)

Document reference: APPENDICES 2 AND 9

5b Do any of the variations you plan to make need extra land to be included in the permit?

No ☒

Yes ☐ Please provide a site report for the extra land.

Document reference

5c Adding an installation

If you are applying to add an installation, tick the box to confirm that you have sent in a baseline report and provide a reference. ☒

Document reference: APPENDIX 25

6 Environmental risk assessment - if you need one (see the guidance notes on part C2)

Provide an assessment of the risks each of your proposed activities cause to the environment. The risk assessment must use H1 or an equal method.

Document reference: FULL ENVIRONMENTAL STATEMENT IN APPENDIX 28

Appendix 1 – Low impact installation checklist (see guidance notes on part C2)

Installation reference					
Condition	**Response**				**Do you meet this?**
A – Management techniques	Provide references to show how your application meets A.				Yes ☐ No ☐
	References				
B – Aqueous waste	Effluent created		m3/day		Yes ☐ No ☐
C – Abatement systems	Provide references to show how your application meets C.				Yes ☐ No ☐
	References				
D - Groundwater	Do you plan to release any hazardous substances or non-hazardous pollutants into the ground?		Yes ☐ No ☐		Yes ☐ No ☐
E – Producing waste	Hazardous waste		Tonnes per year		Yes ☐ No ☐
	Non-hazardous waste		Tonnes per year		
F – Using energy	Peak energy consumption		MW		Yes ☐ No ☐
G – Preventing accidents	Do you have appropriate measures to prevent spills and major releases of liquids? (See 'How to comply'.)		Yes ☐ No ☐		Yes ☐ No ☐
	Provide references to show how your application meets G.				
	Reference				
H - Noise	Provide references to show how your application meets H.				Yes ☐ No ☐
	Reference				
I - Emissions of polluting substances	Provide references to show how your application meets I.				Yes ☐ No ☐
	Reference				
J – Odours	Provide references to show how your application meets J.				Yes ☐ No ☐
	Reference				
K – History of keeping to the regulations	Say here whether you have been involved in any enforcement action as described in Compliance History Appendix 1 explanatory notes.		Yes ☐ No ☐		

2.3 Part C3 – Variation to a Bespoke Installation Permit

Application for an environmental permit: Part C3 – Variation to a bespoke installation permit

Fill in this part of the form, together with parts A, C2 and F1, if you are varying a bespoke permit for an installation.

Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that came with it. All relevant guidance documents can be found on our website.

Contents

1 About your activities

1a Tell us about the activities you want to do.

Fill in Table 1a below with details of all the activities listed in schedule 1 of the Environmental Permitting Regulations (EPR) and all directly associated activities (DAAs) (in separate rows) that you propose to carry out at the installation. Please also use this table if you are applying for a Medium Combustion Plant(s) or Specified Generator(s).

Fill in a separate table for each installation you are applying for. Use a separate sheet if you have a long list and send it to us with your application form. Tell us the document reference.

Document reference	SECTION 4.1

Notes to help you complete Table 1a:

1 Quote the section number, part A1 or A2 or B, then paragraph and sub paragraph number as shown in part 2 of schedule 1 to the regulations.

2 Use the description from schedule 1 of the regulations. Include any extra detail that you think would help to accurately describe what you want to do.

3 By 'capacity', we mean:

- the total incineration capacity (tonnes every hour) for waste incinerators;
- the total landfill capacity (cubic metres) for landfills;
- the total treatment capacity (tonnes each day) for waste treatment;
- the total storage capacity (tonnes) for waste storage operations;
- the processing and production capacity for manufacturing operations; or
- the thermal input capacity for combustion activities.

4 The R (recovery) and D (disposal) codes are as set out in Annex I and/or Annex II of the European Waste Framework Directive (as amended).

5 Fill this in as a separate line for each directly associated activity and give an accurate description of any other activities associated with your schedule 1 activities.

6 By 'total storage capacity', we mean the maximum amount of waste, in tonnes, you are able to store on the site at any one time.

Table 1a – Types of activities

Important: Put your main activity first, when listing all of the activities you want to do. Note; some questions only apply to activities involving the acceptance of waste.

Schedule 1 listed activities				**For installations that take waste only**		
Installation / Activity name	Schedule references (See note 1)	Description of the Activity (See note 2)	Activity capacity (See note 3)	Annex I and Annex 2 (disposal and recovery) codes (See note 4)	Hazardous waste treatment capacity (if this applies) (See note 3)	Non-hazardous waste treatment capacity (if this applies) (See note 3)
Installation of a second tissue paper machine (called 'Neptune') at Bridgend PaperMill site	S6.1 A(1)(b)	Producing, in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.Production of a range of hygienic paper tissue products from virgin wood-pulp and recycled paper from a single paper-machine.	The new tissue paper machine has an annual capacity of 75,000 tonnes of tissue paper.			

Directly associated activities (See note 5)

Name of DAA	Description of the DAA (please identify the schedule 1 activity it serves)
Paper conversion	Currently, there are 7 converting lines in operation. One of these lines will be replaced by a new one and one additional line will be installed. Overall, the Bridgend Paper Mill will have 8 converting lines in total. The converting lines will receive parent reels from the paper machines. After various conversion processes including: rewinding, cutting to size, gluing, application of dyes and packaging, the finished products will be dispatched from the new shipping area.

For installations that take waste	Total storage capacity of non-hazardous waste (See note 6)	
	Total storage capacity of hazardous waste (See note 6)	
	Annual throughput (tonnes each year)	

1b Do you intend to accept waste as part of your activities?

No ☒ *Go to section 2*

Yes ☐ Tell us about the waste types you want to accept. See notes below.

For each line in Table 1a (including DAAs), fill in a separate document to list those types of waste you will accept onto the site for that activity. Give the List of Wastes catalogue code and description.

If you need to exclude wastes from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description in the document. You can use Table 1b as a template.

Document references

Table 1b – Template example: types of waste accepted and restrictions	
Waste code	Description of waste
Example	Example
02 01 08*	Agrochemical waste containing dangerous substances
06 01 02*	Hydrochloric acid

2 Emissions to air, water and land

Fill in Table 2 below with details of the emissions that result from the operating techniques at each of your installations.

Fill in one table for each installation. You can use Table 2 as a template. Please provide the reference for each document.

Document references APPENDICES 09 AND 26

Table 2 – Emissions (releases)				
Installation / Activity name	‘Neptune’ paper machine			
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit
A11 (height 30.4 m), No. 02 on Appendix 26	Neptune Machine (Yankee) Hood Exhaust Vent	Oxides of Nitrogen(NO and NO2 expressed as NO2)	40	mg / Nm³
A12 (height 27.4m), No. 03 on Appendix 26	Wet Dust Exhaust of paper machine			
A13 (height 27.4m), No. 01 on Appendix 26	WEE (MIST REM) roof exhaust direction south			
Point source emissions to water (other than sewers)				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit

Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit
Point source emissions to land				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit

3 Operating techniques

3a Technical standards

Fill in Table 3a for each activity at the installation you have referred to in Table 1a above, and list the relevant technical guidance note (TGN) or notes you are planning to use. If you are planning to use the standards set out in the TGN, there is no need to justify using them.

You must justify your decisions in a separate document if:

- there is no technical standard;
- the technical guidance provides a choice of standards; or
- you plan to use another standard.

This justification could include a reference to the Environmental Risk Assessment provided in section 6 of part C2 (General Bespoke Permit) of the application form. The documents in Table 3a should summarise the main measures you use to control the main issues identified in the H1, H1 assessment, assessment or technical guidance. For MCP/Specified Generators please use the Environment Agency's Specified Generator Tranche B Screening Tool.

For each of the activities listed in Table 3a, describe the type of operation and the options you have chosen for controlling emissions from your process.

Fill in one table for each installation. You can use Table 3a as a template. Please provide the reference for each document.

Document references

Table 3a – Technical standards		
Installation / Activity name		
Schedule activity or directly associated activity description	Relevant technical guidance note/document or best available techniques as described in BAT conclusions under IED*****. You will need to refer to 'How to comply' for all permits.	Document reference (if appropriate)
	'How to comply'	
Installation of a second tissue paper machine	How to comply with your environmental permit (NRW 2016), Best Available Techniques (BAT) Reference Document for theProduction of Pulp, Paper and Board (EU 2015)	

(called 'Neptune') at Bridgend PaperMill site		
*****Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control).		

If appropriate, use block diagrams to help describe the operation and process. Give the document references you use for each diagram and description.

Document references | SECTION 4.3 ; APPENDICES 6 AND 7

3b General requirements

Fill in a separate Table 3b for each installation. You can use Table 3b as a template. Please provide the reference for each document.

Document references

Table 3b – General requirements	
Installation / activity name	
If the TGN or H1 assessment shows that emissions of substances not controlled by emission limits are an important issue, send us your plan for managing them	Document reference or references SECTION 4.4
If the TGN or H1 assessment shows that odours are an important issue, send us your odour management plan	Document reference or references SECTION 4.4
If the TGN or H1 assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references SECTION 4.4 AND APPENDIX 23
If our fire prevention guidance or H1 assessment shows that fire risk is an important issues, send us your fire management plan	Document reference or references SECTION 4.4
If the Environment Agency's Specified Generator Tranche B Screening Tool shows that dispersion modelling is not required to assess the risk to the environment, please send us a completed copy of the tool to support your decision	Document reference or references
If the Environment Agency's Specified Generator Tranche B Screening Tool shows that dispersion modelling is required to assess the risk to the environment, please send us a completed copy of the tool and your completed modelling report and modelling input files to support your application.	Document reference or references

3c Types and amounts of raw materials

Fill in Table 3c for all schedule 1 activities. Fill in a separate table for each installation. You can use Table 3c as a template. Please provide the reference for each document.

Document references

Table 3c – Types and amounts of raw materials	
Installation name	'Neptune' paper machine
Capacity (See note 1 below)	

Schedule 1 activity	Description of raw material and composition material	Maximum amount (tonnes) (See note 2 below)	Annual throughput (tonnes per year)	Description of how the raw material is used including any main hazards (include safety information sheets)
FOR FURTHER INFORMATION REFER TO SECTION 4.5 - TYPE AND AMOUNTS OF RAW MATERIALS AND TO APPENDICES 3, 15 AND 17	Description and composition of material is are given in the Safety information sheets in Appendix 16			Safety information sheets in Appendix 16

Notes

1 By 'capacity', we mean the total storage capacity (tonnes) or total treatment capacity (tonnes each day).

2 By 'maximum amount', we mean the maximum amount of raw materials on your site at any one time.

Use a separate sheet if you have a long list of raw materials and send it to us with your application form. Please provide the reference for each document.

Document reference	SECTION 4.5 AND APPENDICES 15 AND 16

3d Information for specific sectors

For some sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7.

For those activities listed below, you must answer the questions in the related document.

Table 3d – Questions for specific sectors	
Sector	Appendix
Combustion	See the questions in appendix 1
Chemicals	See the questions in appendix 2
Intensive farming	See the questions in appendix 3
Clinical waste	See the questions in appendix 4
Hazardous and non-hazardous waste recovery and disposal	See the questions in appendix 5
Incinerating waste	See the questions in appendix 6
Landfill sector	See the questions in appendix 7
Medium Combustion Plant (includes mobile plant)	See the questions in appendix 8
Combined Medium Combustion Plant/Specified Generator (includes mobile plant)	See the questions in appendix 8 and 9
Specified Generator (includes mobile plant)	See the questions in appendix 9

4 Monitoring

4a Describe the measures you use to monitor emissions by referring to each emission point in Table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures;
- the methods you use; and
- the procedures you follow to assess the measures.

Document reference	SECTION 4.6

4b Point source emissions to air only

Provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use Technical Guidance Note M1 (Monitoring). This is available in the Guidance section on our Website.

Document reference	SECTION 4.6

5 Environmental impact assessment

5a Have your proposals had an environmental impact assessment under Council Directive 85/337/EEC of 27 June 1985 [Environmental Impact Assessment] (EIA)?

No ☐ Now go to section 6

Yes ☒ Please provide a copy of the environmental statement and, if the procedure has been completed:

- a copy of the planning permission; and
- the committee report and decision on the EIA.

Document reference	APPENDICES 28 AND 29

6 Resource efficiency and climate change

If the site is a landfill, you only need to fill in this section if the application includes landfill gas engines.

6a Describe the basic measures for improving how energy efficient your activities are

Document reference	SECTION 4.8

6b Provide a breakdown of any changes to the energy your activities use and create

Document reference	SECTION 4.8

6c Have you entered into, or will you enter into, a climate change levy agreement?

No ☐ Describe the specific measures you use for improving your energy efficiency.

Document reference	

Yes ☒ Please give the date you entered (or the date you expect to enter) into the agreement. 06/03/2013

Please also provide documents that prove you are taking part in the agreement.

Document reference	APPENDIX 13 (UMBRELLA CLIMATE CHANGE AGREEMENT FOR THE PAPER SECTOR)

6d Tell us about, and justify your reasons for, the raw and other materials, other substances and water you will use

Document reference	SECTION 4.5, APPENDICES 15, 16 AND 17

6e Describe how you avoid producing waste in line with Council Directive 2008/98/EC on waste

If you produce waste, describe how you recover it.

If it is technically and financially impossible to recover the waste, describe how you dispose of it while avoiding or reducing any effect it has on the environment.

Document reference	SECTION 4.9

7 Medium Combustion Plant

7a Is the total aggregated thermal input of the MCP 20 MW thermal or more?

No ☐

Yes ☐ You must either submit a report which shows how your MCP also meets the requirements of Schedule 24 of the Environmental Permitting Regulations which implement the relevant requirements of the Energy Efficiency Directive (2012/27/EU), or an explanation of why Schedule 24 does not apply in your case.

Tell us the reference for this document, below.

Document reference	

7b Is the MCP either (a) an individual unit greater than or equal to 20MWth, or (b) one that burns waste biomass as described in Article 3(18) (b) of MCPD?

Yes ☐ An individual unit greater than or equal to 20MWth *Go to section 7c*

Yes ☐ Burns waste biomass as described in Article 3(18) (b) of MCPD. *Go to section 7c*

No ☐

7c Do any of the MCPs on site meet the criteria of a Chapter 1, Section 1.1 Part B activity or Chapter 5, Section 5.1 Part B activity?

Yes ☐ Chapter 1, Section 1.1 Part B activity.

Yes ☐ Chapter 5, Section 5.1 Part B activity.

No ☐

If you have ticked 'Yes' to either Chapter 1 or 5 above you must complete a Best Available Techniques assessment in line with the relevant Environmental Permitting technical guidance note. Tell us the reference for this document, below.

Document reference	

8 Combined Medium Combustion Plant/Specified Generators

8a Is the total aggregated thermal input of the Specified Generators 20 MW thermal or more?

No ☐

Yes ☐ You must either submit a report which shows how your MCP/Specified Generator also meets the requirements of Schedule 24 of the Environmental Permitting Regulations which implement the relevant requirements of the Energy Efficiency Directive (2012/27/EU) or an explanation of why Schedule 24 does not apply in your case.

Tell us the reference for this document, below.

Document reference	

8b Is the Specified Generator an individual unit with thermal input greater than or equal to 20 MWth?

No ☐ Now complete all relevant appendices.

Yes ☐ *Go to section 8c*

8c Does the Specified Generator meet the criteria of a Chapter 1, Section 1.1 Part B activity?

No ☐ Now complete all relevant appendices.

Yes ☐ This is a Chapter 1, Section 1.1 Part B activity.

You must complete a Best Available Techniques assessment in line with the relevant Environmental Permitting technical guidance note. Tell us the reference for this document, below.

Document reference	

Appendix 1 – Specific questions for the combustion sector (Not for use for Medium Combustion Plant)

1 Identify the type of fuel burned in your combustion units (including when your units are started up, shut down and run as normal). If your units are dual fuelled (that is, use two types of fuel), list both the fuels you use

Fill in a separate table for each installation.

Installation reference			
Type of fuel	When run as normal	When started up	When shut down
Coal			
Gas oil			
Heavy fuel oil			
Natural gas			
WID waste			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Other			

Notes

1 Not covered by Industrial Emissions Directive 2010/75/EU.

2 'Biomass' is referred to in The Renewables Obligation Order 2002 (SI 2002 No. 914).

Give extra information if it helps to explain the fuel you use.

Document reference

2 Give the composition range of any fuels you are currently allowed to burn in your combustion plant

Fill in a separate table for each installation.

Installation reference					
Parameter	Unit	Fuel 1	Fuel 2	Fuel 3	Fuel 4
Maximum percentage of gross thermal input	%				
Moisture	%				
Ash	% wt/wt dry				
Sulphur	% wt/wt dry				
Chlorine	% wt/wt dry				
Arsenic	% wt/wt dry				
Cadmium	% wt/wt dry				
Carbon	% wt/wt dry				
Chromium	% wt/wt dry				

Copper	% wt/wt dry				
Hydrogen	% wt/wt dry				
Lead	% wt/wt dry				
Mercury	% wt/wt dry				
Nickel	% wt/wt dry				
Nitrogen	% wt/wt dry				
Oxygen	% wt/wt dry				
Vanadium	mg/kg dry				
Zinc	mg/kg dry				
Net calorific value	MJ/kg				

3 If NOx factors are necessary for reporting purposes (that is, if you do not need to monitor emissions), please provide the factors associated with burning the relevant fuels

Fill in a separate table for each installation.

Installation reference	
Fuel	NOx factor (kgt–1)
Fuel 1	
Fuel 2	
Fuel 3	
Fuel 4	
Note: kgt–1 means kilograms of nitrogen oxides released for each tonne of fuel burned	

4 Will your combustion plant be subject to Chapter III of the Industrial Emissions Directive 2010/75/EU? (see Government guidance)

No ☐ *This Annex is complete.*

Yes ☐

5 Is your plant (tick an option)

an existing plant (a plant licensed before 1 July 1987)? ☐

a new plant (a plant licensed on or after 1 July 1987 but before 27 November 2002, or a plant for which an application was made before 27 November 2002 and which was put into operation before 27 November 2003)? ☐

a new-new plant (a plant for which an application was made on or after 27 November 2002)? ☐

6 If you run more than one type of plant or a number of the same type of plant on your installation, please list them in the table below

Fill in a separate table for each installation.

Installation reference	
Type of plant	Number within installation
Existing	
New	
New-new	

Gas turbine (group A)	
Gas turbine (group B)	

7 If you run an existing plant, have you submitted a declaration for the 'limited life derogation' set out in Article 33 of Chapter III of the Industrial Emissions Directive?

No ☐ *Go to section 9*

Yes ☐

8 Have you subsequently withdrawn your declaration?

No ☐

Yes ☐

9 List the existing large combustion plants (LCPs) which have annual mass allowances under the National Emission Reduction Plan (NERP), and those with emission limit values (ELVs) under the LCPD

Installation reference	
LCPs under NERP	LCPs with ELVs

10 Do you meet the monitoring requirements of Chapter III of the Industrial Emissions Directive?

Yes ☐

Tell us how you meet the monitoring requirements of Chapter III and give us the reference for this document.

Document reference

Appendix 2 – Specific questions for the chemical sector

1 Please provide a technical description of your activities

The description should be enough to allow us to understand:

- the process;
- the main plant and equipment used for each process;
- all reactions, including significant side reactions (that is, the chemistry of the process);
- the material mass flows (including by products and side streams) and the temperatures and pressures in major vessels;
- the all emission control systems (both hardware and management systems), for situations which could involve releasing a significant amount of emissions – particularly the main reactions and how they are controlled;
- a comparison of the indicative BATs and benchmark emission levels standards in Technical Guidance Notes (TGNs) EPR 4.01, EPR 4.02 and EPR 4.03, and chemical sector BREFs.

Document reference

2 If you are applying for a multi-purpose plant, do you have a multi-product protocol in place to control the changes?

No ☐

Yes ☐ Provide a copy of your protocol to accompany this application

Document reference

3 Does Chapter V of the Industrial Emissions Directive (IED) apply to your activities?

No ☐ This Annex is complete.

Yes ☐ Fill in Table 3a – listing each of the activities controlled under the IED.

Table 3a – activities controlled under the IED.	
Installation reference	
Activities	

3b Describe how the list of activities in question 3a above meets the requirements of the IED

Document reference

Appendix 3 – Specific questions for the intensive farming sector

1 For each type of livestock, tell us the number of animal places you are applying for

Installation reference	
Type of livestock	Number of places

2 Is manure or slurry exported from the site?

No ☐

Yes ☐

3 Is manure or slurry spread on the site?

No ☐

Yes ☐

Appendix 4 – Specific questions for the clinical waste sector

If you are applying for an activity covered by the Waste Incineration Directive and wish to accept clinical waste you should fill in questions 1, 2 and 3 of this appendix.

Note: If your procedures are fully in line with the standards set out in EPR5.07 then you should tick the 'yes' box and provide the procedure reference. There is no need for you to supply a copy of the procedure.

1 Are pre-acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.2 of EPR 5.07 and which are used to assess a waste enquiry before it is accepted at the installation?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

2 Are waste acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.2 of EPR 5.07, and which are used to cover issues such as loads arriving and being inspected, sampling waste, rejecting waste, and keeping records to track waste?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

3 Are waste storage, handling and dispatch procedures, and infrastructure in place that are fully in line with the appropriate measures set out in section 3.2 of EPR 5.07?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

4 Are monitoring procedures in place that are fully in line with the appropriate measures set out in section 3.3 of EPR 5.07?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

5 Are you proposing to either

- accept an additional waste not included in Table 2.1 of section 2.1 of EPR 5.07, or
- apply a permitted activity to a waste other than that identified for that waste in Table 2.1?

No ☐

Yes ☐ Provide justification : Document reference

6 Please provide a summary description of the treatment activities undertaken on the installation. This should cover the general principles set out in section 2.1.4 of EPR 5.07

Document reference

7 Please provide layout plans detailing the location of each treatment plant and main plant items and process flow

Document reference

Appendix 5 – Specific questions for the hazardous and non-hazardous waste recovery and disposal sector

Note: If your procedures are fully in line with the standards set out in SGN 5.06 then you should tick the 'yes' box and provide the procedure reference. There is no need for you to supply a copy of the procedure.

1 Are pre-acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.1.1 of SGN 5.06, and which are used to assess a waste enquiry before it is accepted at the installation?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

2 Are waste acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.1.2 of SGN 5.06, and which are used to cover issues such as loads arriving and being inspected, sampling waste, rejecting waste, and keeping records to track waste?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

3 Are waste storage procedures and infrastructure in place that are fully in line with the appropriate measures set out in section 2.1.3 of SGN 5.06?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

4 Provide a layout plan giving details of where the installation is based, the infrastructure in place (including areas and structures for separately storing types of waste which may be dangerous to store together) and capacity of waste storage areas and structures

Document reference

5 Provide a summary of the treatment activities carried out on the installation. This should cover the general principles set out in section 2.1.4 of SGN 5.06 and the specific principles set out in sections 2.1.5 to 2.1.15 as appropriate of SGN 5.06

Document reference

6 Provide layout plans giving details of where each treatment plant is based, the main items at each plant, and process flow diagrams for the treatment plant

Document reference

Appendix 6 – Specific questions for the waste incineration sector

If you are proposing to accept clinical waste please also fill in questions 1, 2 and 3 of appendix 4 above.

1a Do you run incineration plants as defined by Chapter IV of the Industrial Emissions Directive (IED)?

No ☐ You do not need to answer any other questions in this appendix.

Yes ☐ WID applies

1b Are you subject to IED as an incinerator or co-incinerator?

As an incinerator ☐

As a co-incinerator ☐

2 Do any of the installations contain more than one incineration line?

No ☐ *Go to section 4*

Yes ☐

3 How many incineration lines are there within each installation?

Fill in a separate table for each installation

Installation reference	
Number of incineration lines within the installation	
Reference identifiers for each line	

You must provide the information we ask for in questions 4, 5 and 6 below in separate documents. The information must at least include all the details set out in section 2 ('Key Issues') of TGN S5.01 (under the subheading 'European legislation and your application for an EP Permit').

4 Describe how the plant is designed, equipped and will be run to make sure it meets the requirements of IED, taking into account the categories of waste which will be incinerated

Document reference

5 Describe how the heat created during the incineration and co-incineration process is recovered as far as possible (for example, through combined heat and power, creating process steam or district heating)

Document reference

6 Describe how you will limit the amount and harmful effects of residues and describe how they will be recycled where this is appropriate

Document reference

For each line identified in question 3, answer questions 7 to 13 below

Question 3 identifier, if necessary

7 Do you want to take advantage of the Article 45 (1)(f) allowance (see below) if the particulates, CO or TOC continuous emission monitors (CEM) fail?

No ☐ *Go to section 8*

Yes ☐ This article allows 'abnormal operation' of the incineration plant under certain circumstances when the CEM for releases to air have failed. Annex VI, Part 3(2) sets maximum half hourly average release levels for particulates (150mg/m3), CO (normal ELV) and TOC (normal ELV) during abnormal operation.

Describe the other system you use to show you keep to the requirements of Article 13(4) (for example, using another CEM, providing a portable CEM to insert if the main CEM fails, and so on).

8 Do you want to replace continuous HF emission monitoring with periodic hydrogen fluoride (HF) emission monitoring by relying on continuous hydrogen chloride (HCl) monitoring as allowed by IED Annex VI, Part 6 (2.3)?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you control hydrogen chloride and keep it to a level below the HCl ELVs.

No ☐ *Go to section 9*

Yes ☐ Please give reasons for doing this.

9 Do you want to replace continuous water vapour monitoring with pre-analysis drying of exhaust gas samples, as allowed by IED Annex VI, Part 6 (2.4)?

Under this you do not have to continuously monitor the amount of water vapour in the air released if the sampled exhaust gas is dried before the emissions are analysed.

No ☐

Yes ☐ Please give reasons for doing this.

10 Do you want to replace continuous hydrogen chloride (HCl) emission monitoring with periodic HCl emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen chloride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give reasons for doing this.

11 Do you want to replace continuous HF emission monitoring with periodic HF emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give reasons for doing this.

12 Do you want to replace continuous SO_2 emission monitoring with periodic sulphur dioxide (SO_2) emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for sulphur dioxide if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give reasons for doing this.

13 If your plant uses fluidised bed technology, do you want to apply for a derogation of the CO WID ELV to a maximum of 100 mg/m_3 as an hourly average, as allowed by IED Annex VI, Part 3?

No ☐

Does not apply ☐

Yes ☐ Please give reasons for doing this.

Appendix 7 – Specific questions for the landfill sector

1 Provide your Environmental Setting and Installation Design (ESID) report

Document reference

2 Provide your hydrogeological risk assessment (HRA) for the site

Document reference

3 Provide your stability risk assessment (SRA) for the site

Document reference

4 Provide your landfill gas risk assessment (LFGRA) for the site

Document reference

Templates for these four reports can be found using the links on our Guidance Webpages.

5 Provide your proposed plan for closing the site and your procedures for looking after the site once it has closed

Document reference

Appendix 8 – Medium Combustion Plant ('MCP') and combined MCP/Specified Generator Check List

Please provide the information below for each new medium combustion plant or combined MCP/Specified Generator as identified in Annex I of the Medium Combustion Plant Directive (EU/2015/2193).			
Questions	**Answers**		
1 What is the MCPD identifer[1] (As shown on site plan)?			
2 What is the rated thermal input (MWth) of the medium combustion plant. Where there is more than one medium combustion plant, please provide the individual and aggregated total thermal input for all plants.		MWth (only one)	
		MWth (If more than one)	
3 Please indicate the type of medium combustion plant by ticking the appropriate option.	Diesel engine		☐
	Gas turbine		☐
	Dual fuel engine		☐
	Other engines		☐
	Other medium combustion plant		☐
4 Please state the type of fuels used	Fuel type	Tick relevant options	Share of fuels used (%)
	Solid Biomass	☐	
	Other Solid Fuels	☐	
	Gas Oil (Diesel)	☐	
	Liquid fuels other than gas oil	☐	
	Natural Gas	☐	
	Gaseous fuels other than natural gas	☐	
5 Please state the start date of the operation of the Medium Combustion Plant. Or where the exact start date is unknown, provide proof that the operation started before 20th December 2018.		Start date	
	Or, if start date unknown; provide proof:		
		Document reference	
6 Please state the sector of activity of the Medium Combustion Plant or the facility in which it is applied (NACE code[2])			
7 Please state the expected number of annual operating hours of the Medium Combustion Plant, and average load in use.		Hours	
		Average load in use	
8 Please confirm that where the option of exemption under article 6(3) or article 6(8) of the medium combustion plant directive is used, the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	Yes, I/We confirm that where the option of exemption under article 6(3) or article 6(8) of the medium combustion plant directive is used, the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs		☐

9 Please confirm that the operator name, registered office address and in the case of stationary medium combustion plant, the address where the plant is located is as stated in Form Part A and Form Part B1.	Yes, I/We confirm that the operator name, registered office address and in the case of stationary medium combustion plants, the address where the plant is located is as stated in Form Part A and Form Part B1.	☐

Explanatory notes to checklist

1. Identifier – the MCP must be traceable via a serial number or other unique identifier, name plate, manufacturer and/or model.

2. NACE code* means Nomenclature of Economic Activities and is the European statistical classification of economic activities.

Appendix 9 – Specific questions for Specified Generators

Please provide the information below for **each** generator identifier, which comprises the Specified Generator (Excluded generators are not required to be included in this appendix).

If your application is for a specified generator that is also a new medium combustion plant, you will also need to complete appendix 8 for each new medium combustion plant.

Questions	**Answers**	
1 What is the generator identifier[1] (As shown on the site plan)?		
2 What is the rated thermal input (MW) of the generator?		MWth
3 Please provide details of any capacity agreement(s) or balancing service agreement(s) for each individual generator, i.e. if they are Tranche A or Tranche B generators.		
4 Please state the total rated thermal input of all generators on site.		MWth
5 Please indicate if the operating hours for each individual Tranche A generator be restricted to 50 hour or less per year.	Yes	☐
	No	☐
6 Please indicate if the aggregated operating hours for all Tranche A generators be restricted to 50 hour or less per year.	Yes	☐
	No	☐
7 Will the NOx emissions of any individual Tranche A generator will be greater than 500mg/Nm3 per year (STP, 15% O_2)?	Yes	☐
	No	☐

Explanatory notes to checklist

1. Identifier – the gnerator must be traceable via a serial number or other unique identifier, name plate, manufacturer and/or model

2.4 Part F1 – OPRA, Charges and Declarations

Application for an environmental permit: Part F1 – Opra, charges and declarations

Fill in this part for all applications for installations, waste operations, mining waste operations and groundwater discharges onto land.

Please check that this is the latest version of the form available from our website.

For applications for water discharge and point source groundwater discharge activities you need to fill in part F2 instead.

Please read through this form and the guidance notes that came with it. All relevant guidance documents can be found on our website.

Contents

1 Working out charges (you must fill in this section)

You have to submit an application fee with your application. You can find out the charge by looking at our current environmental permitting charging scheme. This can be found on our 'How we regulate you' webpages. Please remember that the charges are revised on 1 April each year and that there is an annual subsistence charge (for site based permis) to cover the costs we incur in the ongoing regulation of the permit.

Examples: We have included examples to help you complete the table. The Tier 2 charge example is for an application for a 'New standard rule' permit. The Tier 3 charge example is for an installation Opra based charge for a normal variation (multiplier) application.

Note: for Opra charged Tier 3 Facilities you also need to complete an Opra profile (see section 2).

Table 1 – Working out charges				
Type of application	Substantial variation to a bespoke permit			
	Summary of charges			
Tier 2 facilities (including Part A(2) and Part B)	Charge identifier	Number of facilities	Charge for each facility (£)	Charges due (£)
EXAMPLE: SR2010 No12	S060A (W)	1	1,630.00	1,630.00
		1		
Tier 3 facilities				
EXAMPLE: Total Opra charging score for installations	90	× charge multiplier	57	5,130.00
Total Opra charging score for installations	171	× charge multiplier	116	19,836.00
Total Opra charging score for waste operations		× charge multiplier		
Total Opra charging score for mining waste facilities				
Other charges (such as one-off assessments or fixed charge applications etc.)				
			Total charges due	19,836.00

2 Opra profile (does not apply to standard facilities, or other tier 2 permit applications)

If you are submitting a bespoke application, you must include a completed electronic copy in Excel of the *current* Opra spreadsheet. You can find the current Opra spreadsheet in the 'Our charges' section on our 'How we regulate you' webpages.

For all variations, full and partial surrenders: you will need to submit a copy of your current Opra profile based on your existing profile, not a new profile following the variation or surrender.

For transfers: you will need to submit a revised Opra profile to include your own operator performance. Note: this will not change the set transfer fee.

Important: your Opra profile (score) must match our records. If you are unsure about your current Opra profile (score), you should talk to your regulatory officer before submitting your application.

Tick this box to confirm that you have included the electronic OPRA spreadsheet ☒

3 Payment

3a How do you want to pay?

Tick an option below to show how you will pay.

Electronic transfer (for example, BACS)	☒	*Go to section 3b*
Credit or Debit card	☐	*Go to section 3c*
Cheque	☐	*Go to section 3d*
Postal order	☐	*Go to section 3d*

3b Paying by electronic transfer

If you choose to pay by electronic transfer use the following information to make your payment.

Company name:	Natural Resources Wales
Company address:	Income Dept., PO BOX 663, Cardiff, CF24 0TP
Bank:	RBS
Address:	National Westminster Bank Plc, 2 ½ Devonshire Square, London, EC2M 4BA
Sort code:	60-70-80
Account number:	10014438

Reference number

You can use any reference number but we prefer the number to be 'EPR' followed by the first nine letters of your organisation name followed by a four-digit number.

For example, for a company named Joe Bloggs Ltd, the reference number might be EPRJOEBLOGGS0001. (Remember you can use any four-digit number at the end.)

The reference number you will provide will appear on our bank statements so we can check your payment. We may need to contact your bank to make sure the reference number is quoted correctly.

You should also email your payment details and payment reference number to banking.team@naturalresourceswales.gov.uk / banking.team@cyfoethnaturiolcymru.gov.uk or fax it to 0300 065 3001 and enter it in the space provided below.

BACS reference	EPRWEPAUK-0001
Amount paid	19,836.00 £

Making payments from outside the UK

These details have changed. If you are making your payment from outside the United Kingdom (which must be received in sterling), our IBAN number is GB70 NWBK6070 8010 0144 38 and our SWIFT/BIC number is NWBKGB2L.

If you do not quote your payment reference number, there may be a delay in processing your payment and application.

3c Paying by credit or debit card

If you are paying by credit or debit card, please fill in the separate form CC1.

You can download this from our website or you can ask for one of our customer service providers to send one by post. We will destroy your card details once we have processed your payment. We can accept payments by Visa, MasterCard or Maestro UK card only.

3d Paying by cheque or postal order

You should make cheques or postal orders payable to Natural Resources Wales and they should be marked 'A/c Payee'.

We *will not* accept post-dated cheques (cheques with a future date written on them).

Cheque/ postal order number	
Amount paid	

4 The Data Protection Act 1998 and General Data Protection Regulations

We, the Natural Resources Body for Wales (hereafter "Natural Resources Wales"), will process the information you provide so that we can:

- deal with your application;
- make sure you keep to the conditions of the licence, permit or registration;
- process renewals; and
- keep the public registers up to date.

We may also process or release the information to:

- offer you documents or services relating to environmental matters;
- consult the public, public organisations and other organisations (for example, the Health and Safety Executive, local authorities, the emergency services, the Department for Environment, Food and Rural Affairs) on environmental issues;
- carry out research and development work on environmental issues;
- provide information from the public register to anyone who asks;
- prevent anyone from breaking environmental law, investigate cases where environmental law may have been broken, and take any action that is needed;
- assess whether customers are satisfied with our service, and to improve our service; and
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows). We may pass the information on to our agents or representatives to do these things for us.

5 Confidentiality and national security

We will normally put all the information in your application on a public register of environmental information. However, we may not include certain information in the public register if this is in the interests of national security, or because the information is confidential

Confidentiality

You can ask for information to be made confidential by enclosing a letter with your application giving your reasons. If we agree with your request, we will tell you and not include the information in the public register. If we do not agree with your request, we will let you know how to appeal against our decision, or you can withdraw your application.

Only tick the box below if you wish to claim confidentiality for your application.

Please treat the information in my application as confidential ☐

Tick the box to confirm you have provided evidence to support your confidentiality claim and give us the document reference, below. ☐

Document reference

National security

You can tell the Welsh Ministers that you believe including information on a public register would not be in the interests of national security.

You must enclose a letter with your application telling us that you have told the Welsh Ministers and you must still include the information in your application. We will not include the information in the public register unless the Welsh Ministers decides that it should be included.

You can find guidance on national security in 'Core Environmental Permitting Guidance' published by Defra and available via the .Gov website.

You cannot apply for national security via this application.

6 Application checklist (you must fill in this section)

Tell us about the supporting evidence and information you have sent with this application.

Application fee - You must submit the correct application fee in line with our current charging scheme.

Tick the box to say you have included the correct fee. ☐

List all the documents you have included in Table 2. Please see the guidance notes for examples on how to complete the checklist.

If the relevant information for a question forms part of a larger document, please specify the relevant section(s) of the document. This will speed up the process of checking your application and making decisions.

If necessary, continue on a separate sheet and tell us the reference you have given the document below.

Document reference SECTION 5.2

Table 2 – application checklist

Question reference	Document title/ reference	Document section

7 Declaration

You must read this section before making the declaration and sending your form to us.

For transfer applications - Both you and the person receiving the permit must make the declaration.

Section 7d must be completed by the current holder *and* Section 7e must be completed by the proposed new holder.

A relevant person should make the declaration. You must be a relevant person or have the authority of a relevant person to sign this application on their behalf.

Relevant people means each applicant, and in the case of a company, a director, manager, company secretary or any similar officer or employee listed on current appointments in Companies House. In the case

of a Limited Liability Partnership (LLP), it includes any partner. If the permit holder is an organisation of individuals, each individual (or individual trustee) must complete the declaration.

To simplify and speed up the application process we recommend that the declaration is filled in by an officer of a company or one of the partners in a Limited Liability Partnership (LLP).

If you wish a manager, employee or consultant etc. to sign the declaration on behalf of a relevant person, we will need written confirmation from a relevant person; that is, an officer of the company, a partner in the LLP or the individual, confirming that the person has the authority to fill in the declaration.

If you are joint permit holders you should each fill in your own declaration. We have provided extra spaces for this below. Please send in a separate sheet with your application if you need more room for signatories.

Where the operator is the subject of any insolvency procedure, the declaration must be filled in by the official receiver/appointed insolvency practitioner.

7a Are you signing the form on *behalf of* a relevant person?

If you are *not* a relevant person, but want to sign the application on their behalf, you must include confirmation that you can do this.

I have included written confirmation from a relevant person to confirm I can sign on their behalf. ☐

7b Does your application include a standard facility?

If your application includes a standard facility, you also need to confirm that you are able to meet all relevant criteria of the standard rule set/sets for which you are applying.

I confirm that my standard facility will fully meet the rules that I have applied for. ☒

7c Does your application include ecological survey information?

If your application includes ecological survey information, please see the guidance notes on part F1 and tick the box below to confirm that you have no issue with us using information from any ecological survey you have supplied with your application.

I confirm I am happy for the ecological survey information I have supplied to be used as set out in the guidance. ☒

7d Declaration

If you're transferring the permit, the current holder or holders should sign this section of the declaration, and the proposed new holder or holders of the permit should sign the declaration in section 7e.

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title	Mr	
First name	Tony	
Last name	Curtis	
On behalf of (if relevant)		
Today's date		

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title		
First name		
Last name		
On behalf of (if relevant)		
Today's date		

7e Declaration for the person or persons *receiving* the permit (transfers only)

The persons 'receiving the permit' is the proposed new permit holder.

Note: If you cannot trace a person or persons holding the permit you may be able to transfer the permit without their declaration (in section 7d above). Please contact us to discuss this and supply evidence in your application to confirm you are unable to trace one or all of the permit holders.

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title		
First name		
Last name		
On behalf of (if relevant)		
Today's date		

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title		
First name		
Last name		
On behalf of (if relevant)		
Today's date		

SECTION 3

INFORMATION IN SUPPORT OF PART C2

3 Information in Support of Part C2

3.1 About the Permit

Discussions before the application

3.1.1 The Applicant has met with officers of NRW on several occasions as part of the pre-application consultation process for this application in order to discuss the proposals for the Project and consultation is on-going in relation to that application.

3.1.2 Specific meetings relating to Environmental Permitting for the Project were held on:

a) 22 January 2020 – Pre-arranged pre-application meeting; pre-application advice given on Environmental Management System, Industrial Emissions Directive (IED), main environmental risks, Best Available Techniques (BAT), drainage, and OPRA,

b) 15 December 2020 – Site visit by PPC site officer:

3.1.3 Meeting notes of these meetings are attached as Appendix 31.

Permit Number

3.1.4 The existing Bridgend Paper Mill operates in accordance with the Environmental Permitting (England and Wales) Regulations 2010. The Environmental Permit reference number is EPR/EP 3738NG.

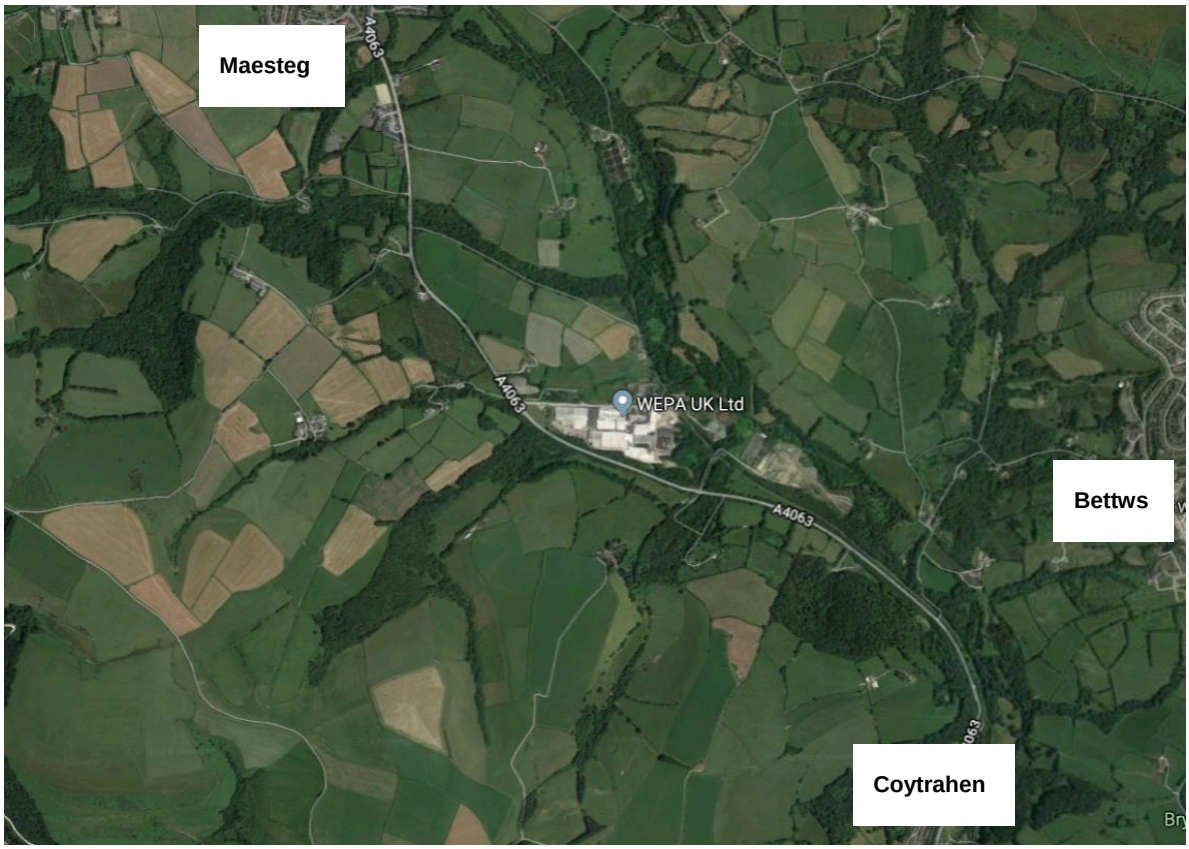
Site details

3.1.5 The proposed development site is located on the site of the existing Bridgend mill site approximately 5 km to the north of Bridgend town centre, in an area bound to the south and to the west by the A4063, to the east by the River Llynfi, and to the north by open farmland. The site is orientated along its long axis in an approximate west to east direction and it is accessed via the A 4063 (Bridgend Road) between Maesteg and Coytrahen, with traffic generally proceeding south towards the M 4.

3.1.6 The Bridgend site covers a total area of around 25 hectares of which buildings and other hardstanding areas extend to approximately 15 ha. The new paper machine is centred on approximate National Grid Reference X: 287870, Y: 187088. The location of the proposed paper machine is within the existing WEPA UK site, situated adjacent the existing machine ‘Jupiter’.

3.1.7 Appendices 1 and 2, and Figure 3-1 illustrate that the WEPA mill site is bordered to the south and west by the A4063. The River Llynfi runs to the east of the site. To the north of the site, there are open fields and farmland. In the immediate surrounding of the site, sheep farming is the predominant land use. Woodland cover in the area is generally sparse, mainly confined to lining roads, around villages and along the River Llynfi.

Figure 3-1: Development site and surrounding



3.2 About your proposed changes

Type of variation

3.2.1 The variation to the existing Environmental Permit should be classed as a substantial change as the new paper machine 'Neptune' is described as an industrial plant for the production of paper and board with a production capacity exceeding 200 tonnes per day.

Non-technical summary of the application explaining the changes or additions to existing activities

3.2.2 WEPA UK intend to operate a second tissue paper machine and associated development at their site in Bridgend. The new paper machine (called 'Neptune') will produce tissue paper only and it will have an average daily output of approximately 206 tonnes/day. The annual capacity city of the installation is approximately 75,000 tonnes of paper product per annum.

3.2.3 The existing installation includes a CHP power plant with a net thermal input of approximately 50 MW. The current CHP plant has the capacity to meet the additional energy demand of the new paper machine (approximately 5,800 kW / h, i.e. approx. 51 GWh / a).

3.2.4 The paper mill uses freshwater in the production process for stock preparation and process water. Based on a fresh water consumption of 6.5m³ per tonne, the new paper machine development will require approximately 488,000 m³ of freshwater per year. The increase in production will result in a change in the demand for water and a change in the effluent produced. Any associated change in abstraction and discharge volumes will be accommodated within existing permit allowances (Appendix 18) and the current on-site effluent treatment plant has sufficient capacity to receive and treat the projected flows.

3.2.5 The surface water drainage system of the new development will be connected to the existing drainage system of the site. The installation will operate in accordance with the approved Sustainable Drainage System (SuDS) (Appendix 24) as issued by Bridgend County Council (Application No: D/20/0004/SAB, dated 11th January 2021).

3.3 Your Ability as an Operator

3.3.1 WEPA UK has considerable experience of tissue paper machines as they operate various similar plants in the UK and all over Europe.

3.3.2 A dedicated project management team of experienced WEPA UK employees will oversee the construction of the new plant to ensure that all works are being carried out in a safe, efficient and proper manner. The project team will ensure that all works take place in accordance with the requirements of any consent or permit granted to WEPA UK for the development.

Management System

3.3.3 WEPA are committed to preventing pollution and operating to high standards of environmental management. For the paper mill in Bridgend, WEPA have implemented an Environmental Management System which is fully integrated and certified to BS EN ISO14001:2015, and a Quality Management System which is certified to BS EN ISO 9001:2015.

3.3.4 Management techniques are one of the available techniques for emission prevention and control and are therefore part of the determination of BAT for the installation. The new paper machine will employ state of the art technology and conform to Best Available Techniques for environmental management, pollution control, and abatement. Further, WEPA have extensive experience and track record in managing their plants in compliance with applicable European and national regulations.

3.3.5 The importance of sound organisational arrangements, effective operations and maintenance procedures, and trained and competent staff is recognised by the Applicant. In particular, the following is addressed under the environmental management system (EMS):

- Management responsibility for environmental performance,
- Minimizing materials, energy and water consumption to the extent feasible,
- Reduction of waste, promotion of reuse and recycling, and assurance that all residual waste is minimized and disposed of appropriately,

- Anticipation and minimization of environmental risks in possible abnormal situations,
- Promotion of information exchange and provision of training to individuals on environmental issues,
- Development of good communication of environmental information to interested parties with regard to environmental performance and planned actions,
- Auditing of operations and activities and monitoring of environmental performance to demonstrate compliance with this policy.

3.3.6 WEPA operates a program of continual improvement of environmental impact issues. When considering the development of the new paper machine at the site, the key environmental performance parameters considered were:

- Meeting emission targets to air,
- Eliminating spills and loss of containment incidents,
- Controlling raw material input to ensure optimum operation of the plant,
- Re-use of process water providing a minimal amount of water to be discharged to the existing Effluent Treatment Plant,
- Preventing fugitive odours escaping into the external environment

3.3.7 The project would trigger changes to internal procedures linked to the environmental permit. With this proposed substantial change, the operator will review local procedures within the EMS and update them as part of the Improvement Plan (Section 6).

Operation and Maintenance

3.3.8 The new paper machine will be operated 7days / week and 24hrs/day on a 3-shift system.

3.3.9 Effective operational and maintenance systems will be employed on all aspects of the proposed installation whose failure could impact on the environment, in particular there will be:

- documented operational control procedures
- a documented preventative maintenance schedule, covering all plant whose failure could lead to impact on the environment, including major 'non productive' items such as pipework, ducts and filters; this should be reviewed and updated regularly
- documented procedures for monitoring emissions
- a clear internal reporting, recording and decision making mechanism identifying personnel, their roles and their responsibilities for the controls included within the permit conditions

3.3.10 A list of key process equipment and abatement equipment will be provided. Such equipment will be provided with alarms or other warning systems which indicate equipment

malfunction or breakdown. Such warning systems will be maintained and checked to ensure continued correct operation, in accordance with the manufacturer's recommendations.

3.3.11 Essential spares and consumables will be held on site or be available at short notice from suppliers, so that plant breakdown can be rectified rapidly.

3.3.12 WEPA have a formal computerised maintenance system called CMMS which includes maintenance planning, programmed preventative maintenance, breakdown history and recording of all maintenance done.

3.3.13 A preventative maintenance program will be in place to take account of feed back in trends of performance and emission releases in the equipment performance.

Incidents and Complaints

3.3.14 WEPA has an established procedure for communication and reporting of health and safety incidents. For the proposed installation, the same system, which will include all operations of the plant, reporting environmental incidents in addition to health and safety incidents will be adopted. Health and safety 'near misses' and environmental incidents are also recorded via a hazard identification reporting system and a non-conformance reporting system. All incidents are discussed at the daily management meeting, and actions are raised to close out any near misses or incidents.

3.3.15 A competent person has been appointed to liaise with the regulator and the public with regard to complaints. Complaints of the public are documented and responded to by a designated person able to take appropriate action to control the problem at the time, in cases where this is appropriate.

3.3.16 The Operator will record and investigate complaints concerning the Installation's effects or alleged effects on the environment. The record will give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

Training and Competence

3.3.17 The new paper machine will employ an approximate 10 people per shift. They will be supervised by staff who are suitably trained and fully conversant with the requirements of the paper machine's operation.

3.3.18 As part of the Integrated Management System (ISO 9001 and ISO 14001) a comprehensive staff training program is in place for all company employees. The programme covers new starter induction and refresher training and will be managed by a training manager. Topics covered include operating procedures, health and safety, and environmental awareness.

3.3.19 Operating staff that will be running the plant will undergo in depth training. Training will reflect all applicable work instructions and environmental procedures to all staff whose roles have a direct impact on the environmental performance of the site.

3.3.20 The staff training program covers potential impacts from operating the plant, emissions monitoring and reporting procedures, spill prevention and clean up procedures, and the site emergency plan.

3.3.21 Training will also include supervised training provided by WEPA at plants in Germany, and by on-site training during commissioning.

3.3.22 The operator will maintain a record of the skills and training requirements for all staff whose tasks in relation to the proposed installation may have an impact on the environment and shall keep records of all relevant training.

3.3.23 Further specific training will be given to nominated key post holders to reflect legislative changes and any particular EPR requirements.

Responsibilities and Procedures

3.3.24 The paper mill in Bridgend is headed by a Managing Director of Production who assumes the responsibility for all site management including environmental protection.

3.3.25 As part of the Integrated Management System (ISO 9001 and ISO 14001) WEPA UK has implemented a system of authorized representatives. The plant's management structure is shown in Appendix 10.

3.3.26 The Authorized Representative for the EMS, a senior production, water, and effluent treatment manager, reports on environmental issues on a regular basis.

3.3.27 The mechanical and electrical engineering departments will include the maintenance function and development of the new facility. Operational responsibility rests with the Managing Director of Production to comply with the legal requirements for company procedures, and for all environmental performance requirements and specific requirements of the Environmental Permit.

3.3.28 All staff is responsible for maintaining task control and recording systems in order to fulfil their allocated environmental tasks. It is also their responsibility to work in accordance with procedures aimed at environmental compliance.

Environmental Improvement Programme

3.3.29 The monitoring of the overall environmental performance against the ISO 14001 management system is done through structured internal and external audits and an annual management review.

Monitoring and Measuring Performance

3.3.30 Environmental performance is reviewed as part of the annual management review. An accredited auditor audits the ISO 14001 management system on an annual basis, and measures the operator's performance against criteria laid down within the ISO 14001 management system.

3.3.31 Monitoring of emissions from the installation is carried out, recorded and reported in accordance with current regulations.

Auditing

3.3.32 The implementation of a programme of internal and external audits ensures auditing of all the elements of the ISO 14001 management system is carried out over a three year period. Independent external surveillance audits are carried out annually by an accredited and certificated body who are accredited to review and appraise ISO 14001 certified systems in the UK. Audits will also be carried out on the management systems of

contractors and service providers, by agreement and with their co-operation. Where corrective action is identified as being required, through audit (or otherwise), which involves changes to the EMS or modifications to the plant and equipment of the new plant, the implementation of such changes will be managed via the EMS Management Programme.

Reporting

3.3.33 The WEPA UK site reports annually on its environmental progress and accomplishments, taking into account local and national reporting standards and best practices. Operational and performance reviews are undertaken through daily, monthly and annually meetings.

3.3.34 Incidents involving a breach of permit requirements are communicated to the Managing Director and other key members of the management team. External complaints are investigated and a record of communication is held in an Environmental Communications file.

3.4 Supporting Information

A Site Plans

3.4.1 The relevant local authority is the Bridgend County Borough Council. The address of the new development is:

WEPA UK Ltd.

Bridgend Paper Mills

Llangynwyd Bridgend

Mid Glamorgan CF34 9RS

3.4.2 The location of the site is shown on Figure 1-1 and Appendix 1. The Application Site is centred at the approximate National Grid Reference (NGR): X: 287780, Y:187160. Appendix 2 and 9 identify all of the land on which the activities of the installation take place.

B Extra land

3.4.3 This application for a variation to the existing Environmental Permit will not require additional land to be included within the Permit as it would be located within the curtilage of the existing permit boundary (Appendices 8 and 9).

C Site Condition Report

3.4.4 A Site Condition Report (SCR) had previously been submitted for the Bridgend Paper Mill site. The SCR from 2016 covered the area required to construct all new buildings and plant. Investigations / samples and ground investigations have been taken on the proposed location of the new development concerning groundwater and soil analysis. The results and reports are included as Appendix 25.

3.5 Environmental Risk Assessment / Environmental Statement

3.5.1 The proposed development has been subject to a comprehensive Environmental Impact Assessment (Appendix 28 and 29) which included a qualitative and quantitative Air Quality Assessment (Appendix 22) as well as a full Noise Assessment (Appendix 23).

3.5.2 Table 3-2 to 3-4 give a qualitative assessment of the risks from the site using a simple classification of high, medium, low or negligible risk; it identifies the sources of, pathways for and receptors to risk. The risk management and control measures, that will be in operation at the site, are described. Where further quantitative data are available to support the assessment of risk a brief description of this is included.

3.5.3 This Environmental Risk Assessment has considered the various amenity and accident risks that are presented by the operation of the proposed development. The assessment has identified the management and mitigation measures that will be implemented to ensure that the site does not represent a significant risk to the surrounding environment and human health.

Conclusion

3.5.4 Overall, the results of the risk assessment show that the proposed management and control measures, which will be used at the Bridgend Paper Mill, will give adequate protection. The site is low risk and will not cause a significant impact on the nearby environment or local residents.

Table 3-1: Noise Risk Assessment and Management Plan

Hazard *What has the potential to cause harm?*	**Receptor** *What is at risk?*	**Pathway** *How can the hazard get to the receptor?*	**Risk management** *What measures will be taken to reduce the risk? If it occurs – who is responsible for what?*	**Probability of exposure** *How likely is this contact?*	**Consequence** *What is the harm that can be caused?*	**Overall risk** *What is the risk that still remains?*
General operation of the plant	Adjacent commercial developments	Air	• Use of inherently quiet plant equipment, silencers, sound insulation of buildings and technical equipment, and sound attenuation. • Operational arrangements at night-time to avoid excessive noise emissions • All plant items shall be controlled to minimize noise of an impulsive or tonal nature. • Monitoring of noise after completion of construction phase and improvement programme to minimize plant noise where possible. • Distance attenuation. • Plant and equipment will be maintained to minimise emissions of noise. • In the event of a complaint, the Operator will follow a complaints procedure to record and act on the complaint, and to inform the EA.	Low - The new plant will operate continuously and thus generate noise continuously	The results of the Noise Assessment (Appendix 23) show that the predicted noise rating levels generated by the new plant will be between 30 and 34 dB. Daytime noise rating levels at all receptors are predicted to be at least 10dB below the background level. This is significantly less than the WHO guideline of 70 dB for neighbouring industrial and commercial areas	Negligible

Hazard *What has the potential to cause harm?*	**Receptor** *What is at risk?*	**Pathway** *How can the hazard get to the receptor?*	**Risk management** *What measures will be taken to reduce the risk? If it occurs – who is responsible for what?*	**Probability of exposure** *How likely is this contact?*	**Consequence** *What is the harm that can be caused?*	**Overall risk** *What is the risk that still remains?*
	Noise Sensitive Locations identified in Appendix 23	Air	• Use of inherently quiet plant equipment, silencers, sound insulation of buildings and technical equipment, and sound attenuation. • Operational arrangements at night-time to avoid excessive noise emissions • All plant items shall be controlled to minimize noise of an impulsive or tonal nature. • Monitoring of noise after completion of construction phase and improvement programme to minimise plant noise where possible. • Distance attenuation. • Plant and equipment will be maintained to minimise emissions of noise. • In the event of a complaint, the Operator will follow a complaints procedure to record and act on the complaint, and to inform NRW.	Medium - The new plant will operate continuously and thus generate noise continuously	The noise rating level at the closest receptor location is predicted to be 5dB below the background level during the night-time.	Negligible

Table 3-2: Vibration Risk Assessment and Management Plan

Hazard *What has the potential to cause harm?*	**Receptor** *What is at risk?*	**Pathway** *How can the hazard get to the receptor?*	**Risk management** *What measures will be taken to reduce the risk? If it occurs – who is responsible for what?*	**Probability of exposure** *How likely is this contact?*	**Consequence** *What is the harm that can be caused?*	**Overall risk** *What is the risk that still remains?*
General operation of the plant	Adjacent developments	Land	• Any plant vibration issues will be resolved during the plant commissioning period and will be controlled under the plant preventative maintenance schedules. • In the event of a complaint, the Operator will follow a complaints procedure to record and act on the complaint, and to inform the NRW.	Low	Vibrations from the paper machine would result in vibration levels which are well below the human perception threshold. The effects are considered not significant (Chapter 7 of Environmental Statement).	Negligible

Table 3-3: Accidents Risk Assessment and Management Plan

Hazard *What has the potential to cause harm?*	**Receptor** *What is at risk?*	**Pathway** *How can the hazard get to the receptor?*	**Risk management** *What measures will be taken to reduce the risk? If it occurs – who is responsible for what?*	**Probability of exposure** *How likely is this contact?*	**Consequence** *What is the harm that can be caused?*	**Overall risk** *What is the risk that still remains?*
Operator error	Air/ land / water	Various – dependant on nature of error	• The plant will be automatically controlled under normal operation, thereby minimising the potential for operator error. • The automatic control system will include alarms to alert the operator of potential operational problems and where relevant will be triggered with sufficient safety margin to permit operator intervention to prevent an actual problem occurring. • All operational staff will be fully trained against the site operating procedures. • Preventative measures will be under continuous review as part of the site EMS. • In the event of a major operator error, the plant will shut down automatically	Low	Variable depending upon nature of incident	Not significant provided operating procedures are followed.
Fire	Local water course	Air, Surface water drainage system	• Responsibilities to be assigned during the development of the plant EMS. Full training provided to all staff regarding the procedures/ responsibilities documented in the plant EMS. • A comprehensive fire detection and suppression systems will be installed (e.g. hydrants external to buildings, portable fire extinguishers), • Emergency management plan • Fire resistant oils will be supplied wherever possible.	Low - Fire prevention measures will ensure such events will be rare.	Potential explosion hazard. Release of emissions to air resulting from oxygen starved combustion of natural gas.	Not significant providing all documented procedures are adhered to and fire-fighting equipment is adequately maintained.

Hazard *What has the potential to cause harm?*	**Receptor** *What is at risk?*	**Pathway** *How can the hazard get to the receptor?*	**Risk management** *What measures will be taken to reduce the risk?* *If it occurs – who is responsible for what?*	**Probability of exposure** *How likely is this contact?*	**Consequence** *What is the harm that can be caused?*	**Overall risk** *What is the risk that still remains?*
Failure to contain fire-water	Local water course	Surface water drainage system	• Measures are in place to protect against a fire. Fire response systems should ensure a rapid response thereby addressing the fire at the earliest point to avoid fire spread and therefore minimising the potential volumes of fire-waters. • The Effluent Treatment Plant will be used to retain firewater.	Low – Sufficient retention volume to contain fire-water	Moderate (although firewater would not be discharged to surface water).	Low – - provided fire fighting procedures are adhered to.
Flooding	Local water course	Water	• The majority of the site is located in Flood Zone A, and partially within Flood Zone B. • All systems are designed for the 1 in 100 year + 40% climate change event.	Low – The site is considered to be at low to no risk.	Potential contamination of flood waters.	Not significant - provided flood procedures of flood warning alerts are followed

Application for an environmental permit: Part C3 – Variation to a bespoke installation permit

Fill in this part of the form, together with parts A, C2 and F1, if you are varying a bespoke permit for an installation.

Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that came with it. All relevant guidance documents can be found on our website.

Contents

1 About your activities

1a Tell us about the activities you want to do.

Fill in Table 1a below with details of all the activities listed in schedule 1 of the Environmental Permitting Regulations (EPR) and all directly associated activities (DAAs) (in separate rows) that you propose to carry out at the installation. Please also use this table if you are applying for a Medium Combustion Plant(s) or Specified Generator(s).

Fill in a separate table for each installation you are applying for. Use a separate sheet if you have a long list and send it to us with your application form. Tell us the document reference.

Document reference	SECTION 4.1

Notes to help you complete Table 1a:

1 Quote the section number, part A1 or A2 or B, then paragraph and sub paragraph number as shown in part 2 of schedule 1 to the regulations.

2 Use the description from schedule 1 of the regulations. Include any extra detail that you think would help to accurately describe what you want to do.

3 By 'capacity', we mean:

- the total incineration capacity (tonnes every hour) for waste incinerators;
- the total landfill capacity (cubic metres) for landfills;
- the total treatment capacity (tonnes each day) for waste treatment;
- the total storage capacity (tonnes) for waste storage operations;
- the processing and production capacity for manufacturing operations; or
- the thermal input capacity for combustion activities.

4 The R (recovery) and D (disposal) codes are as set out in Annex I and/or Annex II of the European Waste Framework Directive (as amended).

5 Fill this in as a separate line for each directly associated activity and give an accurate description of any other activities associated with your schedule 1 activities.

6 By 'total storage capacity', we mean the maximum amount of waste, in tonnes, you are able to store on the site at any one time.

Table 1a – Types of activities

Important: Put your main activity first, when listing all of the activities you want to do. Note; some questions only apply to activities involving the acceptance of waste.

Schedule 1 listed activities				**For installations that take waste only**		
Installation / Activity name	Schedule references (See note 1)	Description of the Activity (See note 2)	Activity capacity (See note 3)	Annex I and Annex 2 (disposal and recovery) codes (See note 4)	Hazardous waste treatment capacity (if this applies) (See note 3)	Non-hazardous waste treatment capacity (if this applies) (See note 3)
Installation of a second tissue paper machine (called 'Neptune') at Bridgend PaperMill site	S6.1 A(1)(b)	Producing, in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.Production of a range of hygienic paper tissue products from virgin wood-pulp and recycled paper from a single paper-machine.	The new tissue paper machine has an annual capacity of 75,000 tonnes of tissue paper.			

Directly associated activities (See note 5)

Name of DAA	Description of the DAA (please identify the schedule 1 activity it serves)
Paper conversion	Currently, there are 7 converting lines in operation. One of these lines will be replaced by a new one and one additional line will be installed. Overall, the Bridgend Paper Mill will have 8 converting lines in total. The converting lines will receive parent reels from the paper machines. After various conversion processes including: rewinding, cutting to size, gluing, application of dyes and packaging, the finished products will be dispatched from the new shipping area.

For installations that take waste	Total storage capacity of non-hazardous waste (See note 6)	
	Total storage capacity of hazardous waste (See note 6)	
	Annual throughput (tonnes each year)	

1b Do you intend to accept waste as part of your activities?

No ☒ *Go to section 2*

Yes ☐ Tell us about the waste types you want to accept. See notes below.

For each line in Table 1a (including DAAs), fill in a separate document to list those types of waste you will accept onto the site for that activity. Give the List of Wastes catalogue code and description.

If you need to exclude wastes from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description in the document. You can use Table 1b as a template.

Document references

Table 1b – Template example: types of waste accepted and restrictions	
Waste code	Description of waste
Example	Example
02 01 08*	Agrochemical waste containing dangerous substances
06 01 02*	Hydrochloric acid

2 Emissions to air, water and land

Fill in Table 2 below with details of the emissions that result from the operating techniques at each of your installations.

Fill in one table for each installation. You can use Table 2 as a template. Please provide the reference for each document.

Document references APPENDICES 09 AND 26

Table 2 – Emissions (releases)				
Installation / Activity name	‘Neptune’ paper machine			
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit
A11 (height 30.4 m), No. 02 on Appendix 26	Neptune Machine (Yankee) Hood Exhaust Vent	Oxides of Nitrogen(NO and NO2 expressed as NO2)	40	mg / Nm³
A12 (height 27.4m), No. 03 on Appendix 26	Wet Dust Exhaust of paper machine			
A13 (height 27.4m), No. 01 on Appendix 26	WEE (MIST REM) roof exhaust direction south			
Point source emissions to water (other than sewers)				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit

Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit
Point source emissions to land				
Emission point reference and location	Source	Parameter	Quantity Unit	Unit

3 Operating techniques

3a Technical standards

Fill in Table 3a for each activity at the installation you have referred to in Table 1a above, and list the relevant technical guidance note (TGN) or notes you are planning to use. If you are planning to use the standards set out in the TGN, there is no need to justify using them.

You must justify your decisions in a separate document if:

- there is no technical standard;
- the technical guidance provides a choice of standards; or
- you plan to use another standard.

This justification could include a reference to the Environmental Risk Assessment provided in section 6 of part C2 (General Bespoke Permit) of the application form. The documents in Table 3a should summarise the main measures you use to control the main issues identified in the H1, H1 assessment, assessment or technical guidance. For MCP/Specified Generators please use the Environment Agency's Specified Generator Tranche B Screening Tool.

For each of the activities listed in Table 3a, describe the type of operation and the options you have chosen for controlling emissions from your process.

Fill in one table for each installation. You can use Table 3a as a template. Please provide the reference for each document.

Document references

Table 3a – Technical standards		
Installation / Activity name		
Schedule activity or directly associated activity description	Relevant technical guidance note/document or best available techniques as described in BAT conclusions under IED*****. You will need to refer to 'How to comply' for all permits.	Document reference (if appropriate)
	'How to comply'	
Installation of a second tissue paper machine	How to comply with your environmental permit (NRW 2016), Best Available Techniques (BAT) Reference Document for theProduction of Pulp, Paper and Board (EU 2015)	

(called 'Neptune') at Bridgend PaperMill site		
*****Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control).		

If appropriate, use block diagrams to help describe the operation and process. Give the document references you use for each diagram and description.

Document references | SECTION 4.3 ; APPENDICES 6 AND 7

3b General requirements

Fill in a separate Table 3b for each installation. You can use Table 3b as a template. Please provide the reference for each document.

Document references

Table 3b – General requirements	
Installation / activity name	
If the TGN or H1 assessment shows that emissions of substances not controlled by emission limits are an important issue, send us your plan for managing them	Document reference or references SECTION 4.4
If the TGN or H1 assessment shows that odours are an important issue, send us your odour management plan	Document reference or references SECTION 4.4
If the TGN or H1 assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references SECTION 4.4 AND APPENDIX 23
If our fire prevention guidance or H1 assessment shows that fire risk is an important issues, send us your fire management plan	Document reference or references SECTION 4.4
If the Environment Agency's Specified Generator Tranche B Screening Tool shows that dispersion modelling is not required to assess the risk to the environment, please send us a completed copy of the tool to support your decision	Document reference or references
If the Environment Agency's Specified Generator Tranche B Screening Tool shows that dispersion modelling is required to assess the risk to the environment, please send us a completed copy of the tool and your completed modelling report and modelling input files to support your application.	Document reference or references

3c Types and amounts of raw materials

Fill in Table 3c for all schedule 1 activities. Fill in a separate table for each installation. You can use Table 3c as a template. Please provide the reference for each document.

Document references

Table 3c – Types and amounts of raw materials	
Installation name	'Neptune' paper machine
Capacity (See note 1 below)	

Schedule 1 activity	Description of raw material and composition material	Maximum amount (tonnes) (See note 2 below)	Annual throughput (tonnes per year)	Description of how the raw material is used including any main hazards (include safety information sheets)
FOR FURTHER INFORMATION REFER TO SECTION 4.5 - TYPE AND AMOUNTS OF RAW MATERIALS AND TO APPENDICES 3, 15 AND 17	Description and composition of material is are given in the Safety information sheets in Appendix 16			Safety information sheets in Appendix 16

Notes

1 By 'capacity', we mean the total storage capacity (tonnes) or total treatment capacity (tonnes each day).

2 By 'maximum amount', we mean the maximum amount of raw materials on your site at any one time.

Use a separate sheet if you have a long list of raw materials and send it to us with your application form. Please provide the reference for each document.

Document reference	SECTION 4.5 AND APPENDICES 15 AND 16

3d Information for specific sectors

For some sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7.

For those activities listed below, you must answer the questions in the related document.

Table 3d – Questions for specific sectors	
Sector	Appendix
Combustion	See the questions in appendix 1
Chemicals	See the questions in appendix 2
Intensive farming	See the questions in appendix 3
Clinical waste	See the questions in appendix 4
Hazardous and non-hazardous waste recovery and disposal	See the questions in appendix 5
Incinerating waste	See the questions in appendix 6
Landfill sector	See the questions in appendix 7
Medium Combustion Plant (includes mobile plant)	See the questions in appendix 8
Combined Medium Combustion Plant/Specified Generator (includes mobile plant)	See the questions in appendix 8 and 9
Specified Generator (includes mobile plant)	See the questions in appendix 9

4 Monitoring

4a Describe the measures you use to monitor emissions by referring to each emission point in Table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures;
- the methods you use; and
- the procedures you follow to assess the measures.

Document reference	SECTION 4.6

4b Point source emissions to air only

Provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use Technical Guidance Note M1 (Monitoring). This is available in the Guidance section on our Website.

Document reference	SECTION 4.6

5 Environmental impact assessment

5a Have your proposals had an environmental impact assessment under Council Directive 85/337/EEC of 27 June 1985 [Environmental Impact Assessment] (EIA)?

No ☐ Now go to section 6

Yes ☒ Please provide a copy of the environmental statement and, if the procedure has been completed:

- a copy of the planning permission; and
- the committee report and decision on the EIA.

Document reference	APPENDICES 28 AND 29

6 Resource efficiency and climate change

If the site is a landfill, you only need to fill in this section if the application includes landfill gas engines.

6a Describe the basic measures for improving how energy efficient your activities are

Document reference	SECTION 4.8

6b Provide a breakdown of any changes to the energy your activities use and create

Document reference	SECTION 4.8

6c Have you entered into, or will you enter into, a climate change levy agreement?

No ☐ Describe the specific measures you use for improving your energy efficiency.

Document reference	

Yes ☒ Please give the date you entered (or the date you expect to enter) into the agreement. 06/03/2013

Please also provide documents that prove you are taking part in the agreement.

Document reference	APPENDIX 13 (UMBRELLA CLIMATE CHANGE AGREEMENT FOR THE PAPER SECTOR)

6d Tell us about, and justify your reasons for, the raw and other materials, other substances and water you will use

Document reference	SECTION 4.5, APPENDICES 15, 16 AND 17

6e Describe how you avoid producing waste in line with Council Directive 2008/98/EC on waste

If you produce waste, describe how you recover it.

If it is technically and financially impossible to recover the waste, describe how you dispose of it while avoiding or reducing any effect it has on the environment.

Document reference	SECTION 4.9

7 Medium Combustion Plant

7a Is the total aggregated thermal input of the MCP 20 MW thermal or more?

No ☐

Yes ☐ You must either submit a report which shows how your MCP also meets the requirements of Schedule 24 of the Environmental Permitting Regulations which implement the relevant requirements of the Energy Efficiency Directive (2012/27/EU), or an explanation of why Schedule 24 does not apply in your case.

Tell us the reference for this document, below.

Document reference	

7b Is the MCP either (a) an individual unit greater than or equal to 20MWth, or (b) one that burns waste biomass as described in Article 3(18) (b) of MCPD?

Yes ☐ An individual unit greater than or equal to 20MWth *Go to section 7c*

Yes ☐ Burns waste biomass as described in Article 3(18) (b) of MCPD. *Go to section 7c*

No ☐

7c Do any of the MCPs on site meet the criteria of a Chapter 1, Section 1.1 Part B activity or Chapter 5, Section 5.1 Part B activity?

Yes ☐ Chapter 1, Section 1.1 Part B activity.

Yes ☐ Chapter 5, Section 5.1 Part B activity.

No ☐

If you have ticked 'Yes' to either Chapter 1 or 5 above you must complete a Best Available Techniques assessment in line with the relevant Environmental Permitting technical guidance note. Tell us the reference for this document, below.

Document reference	

8 Combined Medium Combustion Plant/Specified Generators

8a Is the total aggregated thermal input of the Specified Generators 20 MW thermal or more?

No ☐

Yes ☐ You must either submit a report which shows how your MCP/Specified Generator also meets the requirements of Schedule 24 of the Environmental Permitting Regulations which implement the relevant requirements of the Energy Efficiency Directive (2012/27/EU) or an explanation of why Schedule 24 does not apply in your case.

Tell us the reference for this document, below.

Document reference	

8b Is the Specified Generator an individual unit with thermal input greater than or equal to 20 MWth?

No ☐ Now complete all relevant appendices.

Yes ☐ *Go to section 8c*

8c Does the Specified Generator meet the criteria of a Chapter 1, Section 1.1 Part B activity?

No ☐ Now complete all relevant appendices.

Yes ☐ This is a Chapter 1, Section 1.1 Part B activity.

You must complete a Best Available Techniques assessment in line with the relevant Environmental Permitting technical guidance note. Tell us the reference for this document, below.

Document reference	

Appendix 1 – Specific questions for the combustion sector (Not for use for Medium Combustion Plant)

1 Identify the type of fuel burned in your combustion units (including when your units are started up, shut down and run as normal). If your units are dual fuelled (that is, use two types of fuel), list both the fuels you use

Fill in a separate table for each installation.

Installation reference			
Type of fuel	When run as normal	When started up	When shut down
Coal			
Gas oil			
Heavy fuel oil			
Natural gas			
WID waste			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Biomass (see notes 1 and 2 below)			
Other			

Notes

1 Not covered by Industrial Emissions Directive 2010/75/EU.

2 'Biomass' is referred to in The Renewables Obligation Order 2002 (SI 2002 No. 914).

Give extra information if it helps to explain the fuel you use.

Document reference

2 Give the composition range of any fuels you are currently allowed to burn in your combustion plant

Fill in a separate table for each installation.

Installation reference					
Parameter	Unit	Fuel 1	Fuel 2	Fuel 3	Fuel 4
Maximum percentage of gross thermal input	%				
Moisture	%				
Ash	% wt/wt dry				
Sulphur	% wt/wt dry				
Chlorine	% wt/wt dry				
Arsenic	% wt/wt dry				
Cadmium	% wt/wt dry				
Carbon	% wt/wt dry				
Chromium	% wt/wt dry				

Copper	% wt/wt dry				
Hydrogen	% wt/wt dry				
Lead	% wt/wt dry				
Mercury	% wt/wt dry				
Nickel	% wt/wt dry				
Nitrogen	% wt/wt dry				
Oxygen	% wt/wt dry				
Vanadium	mg/kg dry				
Zinc	mg/kg dry				
Net calorific value	MJ/kg				

3 If NOx factors are necessary for reporting purposes (that is, if you do not need to monitor emissions), please provide the factors associated with burning the relevant fuels

Fill in a separate table for each installation.

Installation reference	
Fuel	NOx factor (kgt–1)
Fuel 1	
Fuel 2	
Fuel 3	
Fuel 4	
Note: kgt–1 means kilograms of nitrogen oxides released for each tonne of fuel burned	

4 Will your combustion plant be subject to Chapter III of the Industrial Emissions Directive 2010/75/EU? (see Government guidance)

No ☐ *This Annex is complete.*

Yes ☐

5 Is your plant (tick an option)

an existing plant (a plant licensed before 1 July 1987)? ☐

a new plant (a plant licensed on or after 1 July 1987 but before 27 November 2002, or a plant for which an application was made before 27 November 2002 and which was put into operation before 27 November 2003)? ☐

a new-new plant (a plant for which an application was made on or after 27 November 2002)? ☐

6 If you run more than one type of plant or a number of the same type of plant on your installation, please list them in the table below

Fill in a separate table for each installation.

Installation reference	
Type of plant	Number within installation
Existing	
New	
New-new	

Gas turbine (group A)	
Gas turbine (group B)	

7 If you run an existing plant, have you submitted a declaration for the 'limited life derogation' set out in Article 33 of Chapter III of the Industrial Emissions Directive?

No ☐ *Go to section 9*

Yes ☐

8 Have you subsequently withdrawn your declaration?

No ☐

Yes ☐

9 List the existing large combustion plants (LCPs) which have annual mass allowances under the National Emission Reduction Plan (NERP), and those with emission limit values (ELVs) under the LCPD

Installation reference	
LCPs under NERP	LCPs with ELVs

10 Do you meet the monitoring requirements of Chapter III of the Industrial Emissions Directive?

Yes ☐

Tell us how you meet the monitoring requirements of Chapter III and give us the reference for this document.

Document reference

Appendix 2 – Specific questions for the chemical sector

1 Please provide a technical description of your activities

The description should be enough to allow us to understand:

- the process;
- the main plant and equipment used for each process;
- all reactions, including significant side reactions (that is, the chemistry of the process);
- the material mass flows (including by products and side streams) and the temperatures and pressures in major vessels;
- the all emission control systems (both hardware and management systems), for situations which could involve releasing a significant amount of emissions – particularly the main reactions and how they are controlled;
- a comparison of the indicative BATs and benchmark emission levels standards in Technical Guidance Notes (TGNs) EPR 4.01, EPR 4.02 and EPR 4.03, and chemical sector BREFs.

Document reference

2 If you are applying for a multi-purpose plant, do you have a multi-product protocol in place to control the changes?

No ☐

Yes ☐ Provide a copy of your protocol to accompany this application

Document reference

3 Does Chapter V of the Industrial Emissions Directive (IED) apply to your activities?

No ☐ This Annex is complete.

Yes ☐ Fill in Table 3a – listing each of the activities controlled under the IED.

Table 3a – activities controlled under the IED.	
Installation reference	
Activities	

3b Describe how the list of activities in question 3a above meets the requirements of the IED

Document reference

Appendix 3 – Specific questions for the intensive farming sector

1 For each type of livestock, tell us the number of animal places you are applying for

Installation reference	
Type of livestock	Number of places

2 Is manure or slurry exported from the site?

No ☐

Yes ☐

3 Is manure or slurry spread on the site?

No ☐

Yes ☐

Appendix 4 – Specific questions for the clinical waste sector

If you are applying for an activity covered by the Waste Incineration Directive and wish to accept clinical waste you should fill in questions 1, 2 and 3 of this appendix.

Note: If your procedures are fully in line with the standards set out in EPR5.07 then you should tick the 'yes' box and provide the procedure reference. There is no need for you to supply a copy of the procedure.

1 Are pre-acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.2 of EPR 5.07 and which are used to assess a waste enquiry before it is accepted at the installation?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

2 Are waste acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.2 of EPR 5.07, and which are used to cover issues such as loads arriving and being inspected, sampling waste, rejecting waste, and keeping records to track waste?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

3 Are waste storage, handling and dispatch procedures, and infrastructure in place that are fully in line with the appropriate measures set out in section 3.2 of EPR 5.07?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

4 Are monitoring procedures in place that are fully in line with the appropriate measures set out in section 3.3 of EPR 5.07?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

5 Are you proposing to either

- accept an additional waste not included in Table 2.1 of section 2.1 of EPR 5.07, or
- apply a permitted activity to a waste other than that identified for that waste in Table 2.1?

No ☐

Yes ☐ Provide justification : Document reference

6 Please provide a summary description of the treatment activities undertaken on the installation. This should cover the general principles set out in section 2.1.4 of EPR 5.07

Document reference

7 Please provide layout plans detailing the location of each treatment plant and main plant items and process flow

Document reference

Appendix 5 – Specific questions for the hazardous and non-hazardous waste recovery and disposal sector

Note: If your procedures are fully in line with the standards set out in SGN 5.06 then you should tick the 'yes' box and provide the procedure reference. There is no need for you to supply a copy of the procedure.

1 Are pre-acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.1.1 of SGN 5.06, and which are used to assess a waste enquiry before it is accepted at the installation?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

2 Are waste acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.1.2 of SGN 5.06, and which are used to cover issues such as loads arriving and being inspected, sampling waste, rejecting waste, and keeping records to track waste?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

3 Are waste storage procedures and infrastructure in place that are fully in line with the appropriate measures set out in section 2.1.3 of SGN 5.06?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

4 Provide a layout plan giving details of where the installation is based, the infrastructure in place (including areas and structures for separately storing types of waste which may be dangerous to store together) and capacity of waste storage areas and structures

Document reference

5 Provide a summary of the treatment activities carried out on the installation. This should cover the general principles set out in section 2.1.4 of SGN 5.06 and the specific principles set out in sections 2.1.5 to 2.1.15 as appropriate of SGN 5.06

Document reference

6 Provide layout plans giving details of where each treatment plant is based, the main items at each plant, and process flow diagrams for the treatment plant

Document reference

Appendix 6 – Specific questions for the waste incineration sector

If you are proposing to accept clinical waste please also fill in questions 1, 2 and 3 of appendix 4 above.

1a Do you run incineration plants as defined by Chapter IV of the Industrial Emissions Directive (IED)?

No ☐ You do not need to answer any other questions in this appendix.

Yes ☐ WID applies

1b Are you subject to IED as an incinerator or co-incinerator?

As an incinerator ☐

As a co-incinerator ☐

2 Do any of the installations contain more than one incineration line?

No ☐ *Go to section 4*

Yes ☐

3 How many incineration lines are there within each installation?

Fill in a separate table for each installation

Installation reference	
Number of incineration lines within the installation	
Reference identifiers for each line	

You must provide the information we ask for in questions 4, 5 and 6 below in separate documents. The information must at least include all the details set out in section 2 ('Key Issues') of TGN S5.01 (under the subheading 'European legislation and your application for an EP Permit').

4 Describe how the plant is designed, equipped and will be run to make sure it meets the requirements of IED, taking into account the categories of waste which will be incinerated

Document reference

5 Describe how the heat created during the incineration and co-incineration process is recovered as far as possible (for example, through combined heat and power, creating process steam or district heating)

Document reference

6 Describe how you will limit the amount and harmful effects of residues and describe how they will be recycled where this is appropriate

Document reference

For each line identified in question 3, answer questions 7 to 13 below

Question 3 identifier, if necessary

7 Do you want to take advantage of the Article 45 (1)(f) allowance (see below) if the particulates, CO or TOC continuous emission monitors (CEM) fail?

No ☐ *Go to section 8*

Yes ☐ This article allows 'abnormal operation' of the incineration plant under certain circumstances when the CEM for releases to air have failed. Annex VI, Part 3(2) sets maximum half hourly average release levels for particulates (150mg/m3), CO (normal ELV) and TOC (normal ELV) during abnormal operation.

Describe the other system you use to show you keep to the requirements of Article 13(4) (for example, using another CEM, providing a portable CEM to insert if the main CEM fails, and so on).

8 Do you want to replace continuous HF emission monitoring with periodic hydrogen fluoride (HF) emission monitoring by relying on continuous hydrogen chloride (HCl) monitoring as allowed by IED Annex VI, Part 6 (2.3)?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you control hydrogen chloride and keep it to a level below the HCl ELVs.

No ☐ *Go to section 9*

Yes ☐ Please give reasons for doing this.

9 Do you want to replace continuous water vapour monitoring with pre-analysis drying of exhaust gas samples, as allowed by IED Annex VI, Part 6 (2.4)?

Under this you do not have to continuously monitor the amount of water vapour in the air released if the sampled exhaust gas is dried before the emissions are analysed.

No ☐

Yes ☐ Please give reasons for doing this.

10 Do you want to replace continuous hydrogen chloride (HCl) emission monitoring with periodic HCl emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen chloride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give reasons for doing this.

11 Do you want to replace continuous HF emission monitoring with periodic HF emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for hydrogen fluoride if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give reasons for doing this.

12 Do you want to replace continuous SO_2 emission monitoring with periodic sulphur dioxide (SO_2) emission monitoring, as allowed by IED Annex VI, Part 6 (2.5), first paragraph?

Under this you do not have to continuously monitor emissions for sulphur dioxide if you can prove that the emissions from this pollutant will never be higher than the ELVs allowed.

No ☐

Yes ☐ Please give reasons for doing this.

13 If your plant uses fluidised bed technology, do you want to apply for a derogation of the CO WID ELV to a maximum of 100 mg/m_3 as an hourly average, as allowed by IED Annex VI, Part 3?

No ☐

Does not apply ☐

Yes ☐ Please give reasons for doing this.

Appendix 7 – Specific questions for the landfill sector

1 Provide your Environmental Setting and Installation Design (ESID) report

Document reference

2 Provide your hydrogeological risk assessment (HRA) for the site

Document reference

3 Provide your stability risk assessment (SRA) for the site

Document reference

4 Provide your landfill gas risk assessment (LFGRA) for the site

Document reference

Templates for these four reports can be found using the links on our Guidance Webpages.

5 Provide your proposed plan for closing the site and your procedures for looking after the site once it has closed

Document reference

Appendix 8 – Medium Combustion Plant ('MCP') and combined MCP/Specified Generator Check List

Please provide the information below for each new medium combustion plant or combined MCP/Specified Generator as identified in Annex I of the Medium Combustion Plant Directive (EU/2015/2193).			
Questions	**Answers**		
1 What is the MCPD identifer[1] (As shown on site plan)?			
2 What is the rated thermal input (MWth) of the medium combustion plant. Where there is more than one medium combustion plant, please provide the individual and aggregated total thermal input for all plants.		MWth (only one)	
		MWth (If more than one)	
3 Please indicate the type of medium combustion plant by ticking the appropriate option.	Diesel engine		☐
	Gas turbine		☐
	Dual fuel engine		☐
	Other engines		☐
	Other medium combustion plant		☐
4 Please state the type of fuels used	Fuel type	Tick relevant options	Share of fuels used (%)
	Solid Biomass	☐	
	Other Solid Fuels	☐	
	Gas Oil (Diesel)	☐	
	Liquid fuels other than gas oil	☐	
	Natural Gas	☐	
	Gaseous fuels other than natural gas	☐	
5 Please state the start date of the operation of the Medium Combustion Plant. Or where the exact start date is unknown, provide proof that the operation started before 20th December 2018.		Start date	
	Or, if start date unknown; provide proof:		
		Document reference	
6 Please state the sector of activity of the Medium Combustion Plant or the facility in which it is applied (NACE code[2])			
7 Please state the expected number of annual operating hours of the Medium Combustion Plant, and average load in use.		Hours	
		Average load in use	
8 Please confirm that where the option of exemption under article 6(3) or article 6(8) of the medium combustion plant directive is used, the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	Yes, I/We confirm that where the option of exemption under article 6(3) or article 6(8) of the medium combustion plant directive is used, the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs		☐

9 Please confirm that the operator name, registered office address and in the case of stationary medium combustion plant, the address where the plant is located is as stated in Form Part A and Form Part B1.	Yes, I/We confirm that the operator name, registered office address and in the case of stationary medium combustion plants, the address where the plant is located is as stated in Form Part A and Form Part B1.	☐

Explanatory notes to checklist

1. Identifier – the MCP must be traceable via a serial number or other unique identifier, name plate, manufacturer and/or model.

2. NACE code* means Nomenclature of Economic Activities and is the European statistical classification of economic activities.

Appendix 9 – Specific questions for Specified Generators

Please provide the information below for **each** generator identifier, which comprises the Specified Generator (Excluded generators are not required to be included in this appendix).

If your application is for a specified generator that is also a new medium combustion plant, you will also need to complete appendix 8 for each new medium combustion plant.

Questions	**Answers**	
1 What is the generator identifier[1] (As shown on the site plan)?		
2 What is the rated thermal input (MW) of the generator?		MWth
3 Please provide details of any capacity agreement(s) or balancing service agreement(s) for each individual generator, i.e. if they are Tranche A or Tranche B generators.		
4 Please state the total rated thermal input of all generators on site.		MWth
5 Please indicate if the operating hours for each individual Tranche A generator be restricted to 50 hour or less per year.	Yes	☐
	No	☐
6 Please indicate if the aggregated operating hours for all Tranche A generators be restricted to 50 hour or less per year.	Yes	☐
	No	☐
7 Will the NOx emissions of any individual Tranche A generator will be greater than 500mg/Nm3 per year (STP, 15% O_2)?	Yes	☐
	No	☐

Explanatory notes to checklist

1. Identifier – the gnerator must be traceable via a serial number or other unique identifier, name plate, manufacturer and/or model

Application for an environmental permit: Part F1 – Opra, charges and declarations

Fill in this part for all applications for installations, waste operations, mining waste operations and groundwater discharges onto land.

Please check that this is the latest version of the form available from our website.

For applications for water discharge and point source groundwater discharge activities you need to fill in part F2 instead.

Please read through this form and the guidance notes that came with it. All relevant guidance documents can be found on our website.

Contents

1 Working out charges (you must fill in this section)

You have to submit an application fee with your application. You can find out the charge by looking at our current environmental permitting charging scheme. This can be found on our 'How we regulate you' webpages. Please remember that the charges are revised on 1 April each year and that there is an annual subsistence charge (for site based permis) to cover the costs we incur in the ongoing regulation of the permit.

Examples: We have included examples to help you complete the table. The Tier 2 charge example is for an application for a 'New standard rule' permit. The Tier 3 charge example is for an installation Opra based charge for a normal variation (multiplier) application.

Note: for Opra charged Tier 3 Facilities you also need to complete an Opra profile (see section 2).

Table 1 – Working out charges				
Type of application	Substantial variation to a bespoke permit			
	Summary of charges			
Tier 2 facilities (including Part A(2) and Part B)	Charge identifier	Number of facilities	Charge for each facility (£)	Charges due (£)
EXAMPLE: SR2010 No12	S060A (W)	1	1,630.00	1,630.00
		1		
Tier 3 facilities				
EXAMPLE: Total Opra charging score for installations	90	× charge multiplier	57	5,130.00
Total Opra charging score for installations	171	× charge multiplier	116	19,836.00
Total Opra charging score for waste operations		× charge multiplier		
Total Opra charging score for mining waste facilities				
Other charges (such as one-off assessments or fixed charge applications etc.)				
			Total charges due	19,836.00

2 Opra profile (does not apply to standard facilities, or other tier 2 permit applications)

If you are submitting a bespoke application, you must include a completed electronic copy in Excel of the *current* Opra spreadsheet. You can find the current Opra spreadsheet in the 'Our charges' section on our 'How we regulate you' webpages.

For all variations, full and partial surrenders: you will need to submit a copy of your current Opra profile based on your existing profile, not a new profile following the variation or surrender.

For transfers: you will need to submit a revised Opra profile to include your own operator performance. Note: this will not change the set transfer fee.

Important: your Opra profile (score) must match our records. If you are unsure about your current Opra profile (score), you should talk to your regulatory officer before submitting your application.

Tick this box to confirm that you have included the electronic OPRA spreadsheet ☒

3 Payment

3a How do you want to pay?

Tick an option below to show how you will pay.

Electronic transfer (for example, BACS)	☒	*Go to section 3b*
Credit or Debit card	☐	*Go to section 3c*
Cheque	☐	*Go to section 3d*
Postal order	☐	*Go to section 3d*

3b Paying by electronic transfer

If you choose to pay by electronic transfer use the following information to make your payment.

Company name:	Natural Resources Wales
Company address:	Income Dept., PO BOX 663, Cardiff, CF24 0TP
Bank:	RBS
Address:	National Westminster Bank Plc, 2 ½ Devonshire Square, London, EC2M 4BA
Sort code:	60-70-80
Account number:	10014438

Reference number

You can use any reference number but we prefer the number to be 'EPR' followed by the first nine letters of your organisation name followed by a four-digit number.

For example, for a company named Joe Bloggs Ltd, the reference number might be EPRJOEBLOGGS0001. (Remember you can use any four-digit number at the end.)

The reference number you will provide will appear on our bank statements so we can check your payment. We may need to contact your bank to make sure the reference number is quoted correctly.

You should also email your payment details and payment reference number to banking.team@naturalresourceswales.gov.uk / banking.team@cyfoethnaturiolcymru.gov.uk or fax it to 0300 065 3001 and enter it in the space provided below.

BACS reference	EPRWEPAUK-0001
Amount paid	19,836.00 £

Making payments from outside the UK

These details have changed. If you are making your payment from outside the United Kingdom (which must be received in sterling), our IBAN number is GB70 NWBK6070 8010 0144 38 and our SWIFT/BIC number is NWBKGB2L.

If you do not quote your payment reference number, there may be a delay in processing your payment and application.

3c Paying by credit or debit card

If you are paying by credit or debit card, please fill in the separate form CC1.

You can download this from our website or you can ask for one of our customer service providers to send one by post. We will destroy your card details once we have processed your payment. We can accept payments by Visa, MasterCard or Maestro UK card only.

3d Paying by cheque or postal order

You should make cheques or postal orders payable to Natural Resources Wales and they should be marked 'A/c Payee'.

We *will not* accept post-dated cheques (cheques with a future date written on them).

Cheque/ postal order number	
Amount paid	

4 The Data Protection Act 1998 and General Data Protection Regulations

We, the Natural Resources Body for Wales (hereafter "Natural Resources Wales"), will process the information you provide so that we can:

- deal with your application;
- make sure you keep to the conditions of the licence, permit or registration;
- process renewals; and
- keep the public registers up to date.

We may also process or release the information to:

- offer you documents or services relating to environmental matters;
- consult the public, public organisations and other organisations (for example, the Health and Safety Executive, local authorities, the emergency services, the Department for Environment, Food and Rural Affairs) on environmental issues;
- carry out research and development work on environmental issues;
- provide information from the public register to anyone who asks;
- prevent anyone from breaking environmental law, investigate cases where environmental law may have been broken, and take any action that is needed;
- assess whether customers are satisfied with our service, and to improve our service; and
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows). We may pass the information on to our agents or representatives to do these things for us.

5 Confidentiality and national security

We will normally put all the information in your application on a public register of environmental information. However, we may not include certain information in the public register if this is in the interests of national security, or because the information is confidential

Confidentiality

You can ask for information to be made confidential by enclosing a letter with your application giving your reasons. If we agree with your request, we will tell you and not include the information in the public register. If we do not agree with your request, we will let you know how to appeal against our decision, or you can withdraw your application.

Only tick the box below if you wish to claim confidentiality for your application.

Please treat the information in my application as confidential ☐

Tick the box to confirm you have provided evidence to support your confidentiality claim and give us the document reference, below. ☐

Document reference

National security

You can tell the Welsh Ministers that you believe including information on a public register would not be in the interests of national security.

You must enclose a letter with your application telling us that you have told the Welsh Ministers and you must still include the information in your application. We will not include the information in the public register unless the Welsh Ministers decides that it should be included.

You can find guidance on national security in 'Core Environmental Permitting Guidance' published by Defra and available via the .Gov website.

You cannot apply for national security via this application.

6 Application checklist (you must fill in this section)

Tell us about the supporting evidence and information you have sent with this application.

Application fee - You must submit the correct application fee in line with our current charging scheme.

Tick the box to say you have included the correct fee. ☐

List all the documents you have included in Table 2. Please see the guidance notes for examples on how to complete the checklist.

If the relevant information for a question forms part of a larger document, please specify the relevant section(s) of the document. This will speed up the process of checking your application and making decisions.

If necessary, continue on a separate sheet and tell us the reference you have given the document below.

Document reference SECTION 5.2

Table 2 – application checklist

Question reference	Document title/ reference	Document section

7 Declaration

You must read this section before making the declaration and sending your form to us.

For transfer applications - Both you and the person receiving the permit must make the declaration.

Section 7d must be completed by the current holder *and* Section 7e must be completed by the proposed new holder.

A relevant person should make the declaration. You must be a relevant person or have the authority of a relevant person to sign this application on their behalf.

Relevant people means each applicant, and in the case of a company, a director, manager, company secretary or any similar officer or employee listed on current appointments in Companies House. In the case

of a Limited Liability Partnership (LLP), it includes any partner. If the permit holder is an organisation of individuals, each individual (or individual trustee) must complete the declaration.

To simplify and speed up the application process we recommend that the declaration is filled in by an officer of a company or one of the partners in a Limited Liability Partnership (LLP).

If you wish a manager, employee or consultant etc. to sign the declaration on behalf of a relevant person, we will need written confirmation from a relevant person; that is, an officer of the company, a partner in the LLP or the individual, confirming that the person has the authority to fill in the declaration.

If you are joint permit holders you should each fill in your own declaration. We have provided extra spaces for this below. Please send in a separate sheet with your application if you need more room for signatories.

Where the operator is the subject of any insolvency procedure, the declaration must be filled in by the official receiver/appointed insolvency practitioner.

7a Are you signing the form on *behalf of* a relevant person?

If you are *not* a relevant person, but want to sign the application on their behalf, you must include confirmation that you can do this.

I have included written confirmation from a relevant person to confirm I can sign on their behalf. ☐

7b Does your application include a standard facility?

If your application includes a standard facility, you also need to confirm that you are able to meet all relevant criteria of the standard rule set/sets for which you are applying.

I confirm that my standard facility will fully meet the rules that I have applied for. ☒

7c Does your application include ecological survey information?

If your application includes ecological survey information, please see the guidance notes on part F1 and tick the box below to confirm that you have no issue with us using information from any ecological survey you have supplied with your application.

I confirm I am happy for the ecological survey information I have supplied to be used as set out in the guidance. ☒

7d Declaration

If you're transferring the permit, the current holder or holders should sign this section of the declaration, and the proposed new holder or holders of the permit should sign the declaration in section 7e.

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title	Mr	
First name	Tony	
Last name	Curtis	
On behalf of (if relevant)		
Today's date		

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title		
First name		
Last name		
On behalf of (if relevant)		
Today's date		

7e Declaration for the person or persons *receiving* the permit (transfers only)

The persons 'receiving the permit' is the proposed new permit holder.

Note: If you cannot trace a person or persons holding the permit you may be able to transfer the permit without their declaration (in section 7d above). Please contact us to discuss this and supply evidence in your application to confirm you are unable to trace one or all of the permit holders.

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title		
First name		
Last name		
On behalf of (if relevant)		
Today's date		

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:

- **I may be prosecuted; and**
- **if convicted, I may have to pay a fine and/or go to prison.**

By signing below, you are confirming that you understand and agree with the declaration above.

Title		
First name		
Last name		
On behalf of (if relevant)		
Today's date		

SECTION 4

INFORMATION IN SUPPORT OF PART C3

4 Information in Support of Part C3

4.1 Type of Activities

4.1.1 This application is for a substantial variation of the existing Environmental Permit for Bridgend Paper Mill and is submitted, on behalf of WEPA UK. The variation will require the addition of an activity listed in Schedule 1, Part 2 of the Environmental Permitting (England and Wales) Regulations 2010.

4.1.2 The application includes for:

Category: S6.1 A(1)(b):	Producing, in industrial plant, paper and board where the plant has a production capacity of more than 20 tonnes per day.
Purpose:	Production of a range of hygienic paper tissue products from virgin wood-pulp and recycled paper from a single paper machine
Capacity:	The new tissue paper machine has an annual capacity of 75,000 tonnes of tissue paper

4.1.3 Currently, there are 7 converting lines in operation. One of these lines will be replaced by a new one and one additional line will be installed. Overall, the Bridgend Paper Mill will have 8 converting lines in total. The converting lines will receive parent reels from the paper machines. After various conversion processes including: rewinding, cutting to size, gluing, application of dyes and packaging, the finished products will be dispatched from the new shipping area. As per Part 1 Section 2(1) of the Environmental Permitting (England and Wales) Regulations 2010, the new converting lines are considered directly associated activity (DAA).

4.2 Emissions to Air, Water and Land

Point source emissions to air

4.2.1 The existing installation includes a CHP power plant with a net thermal input of approximately 50 MW which supplies the entire steam demand of the papermaking operation and approximately 50% of the electrical power of the mill. The CHP plant is natural gas fired with the capacity for supplementary gas oil firing. The current CHP plant has the capacity to meet the additional energy demand of the new paper machine (approximately 5,800 kW / h, i.e. approx. 51 GWh / a). Therefore, any associated change in air emissions will be accommodated within existing permit allowances.

4.2.2 The existing Environmental Permit sets emission limits and monitoring requirements for major release points only.

Table 4-1: Summary of existing release points

Emission point	Description	Category
Existing release points Bridgend Paper Mill		
A 1	CHP plant – Gas turbine stack	Major releases to air
A 2	CHP plant - Shell boiler sack	Major releases to air
A 4	Jupiter Machine Hood Exhaust Vent	Major releases to air
A 5	Jupiter PVOH application drum vent	Minor releases to air
A 6	CHP plant - High pressure natural gas vent (South)	Minor releases to air
A 7	CHP plant - High pressure natural gas vent (North)	Minor releases to air
A 8	HVAC (LUWA) dust extraction system including wet scrubber serving Converting Halls 1 and 3, Lines 15, 18 & 19	Minor releases to air
A 9	Scrubber dust extraction system serving Converting Hall 2, Line 16	Minor releases to air
A 10	Dust extraction system including briquette machine serving Converting Hall 2, Line 17	Minor releases to air
W 1	Effluent Treatment Plant discharge to River Llynfi	Major release to water

4.2.3 Proposed site layouts with new air release points indicated are included as Appendix 21. The locations of new key release points within the site plan are summarised in the following table.

Table 4-2: Summary of new release points (air)

Table – Emissions (releases)				
Installation / Activity name	'Neptune' Paper machine			
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity unit	Unit
A11 (height 30.4 m), No. 02 on Appendix 21	Neptune Machine (Yankee) Hood Exhaust Vent	Oxides of Nitrogen (NO and NO_2 expressed as NO_2	40	mg / Nm³
A 12 (height 27.4m), No. 3 on Appendix 21	Wet Dust Exhaust of Paper Machine			
A 13 (height 27.4m), No. 1 on Appendix 21	WEE (MIST REM) roof exhaust direction south			

4.2.4 The proposed facility will give rise to emissions to air, primarily nitrogen oxides (NO_x), carbon monoxide (CO), and carbon dioxide (CO_2) as a result of the combustion process. NOx are formed in almost all combustion processes where air is the oxidiser. Nitrogen oxides are particularly relevant to gas turbines due to high combustion temperatures which favour the formation of thermal NOx. CO emissions are minimised by efficient and

complete combustion; at the same time this optimises the efficiency of the system, as the fuel is being exploited as efficiently as possible.

4.2.5 CO_2 is a greenhouse gas and contributes to global warming. The use of a gas turbine minimises the quantities of CO_2 emitted compared with other combustion techniques. Moreover, the use of steam (i.e. heat) for production purposes results in the highest efficiency of fuel usage.

4.2.6 Emissions from other point sources such as:

- methane and other non-methane hydrocarbons emissions from safety vents on the natural gas system;
- emissions of steam from steam vents
- emissions of dust from dust vents

will be insignificant

4.2.7 During commissioning emissions of NOx are expected to be above the limit of 40 mg/Nm³ for a limited period of time of approximately 3-4 weeks. The activities during this period will include e.g. 'first paper' and full-speed-reduced-load operation. It is expected that during the majority of the commissioning phase, there will be no sustained periods of operation at full speeds. Even though the concentration of emissions may exceed the emission limits during the commissioning phase, there is no overall increase in emission mass flow rates since the flue gas mass flow is much lower than during full speed operation.

4.2.8 The impact of the emissions from the proposed project have been assessed via a full dispersion modelling study and compared to the statutory objectives for the relevant pollutants; the results are discussed in more detail in Section 6 of the Environmental Statement (Appendix 28).

Air quality assessment

4.2.9 The air quality assessment has considered the significance of potential effects on the local air quality and amenity as a result of the proposed development of the Application Site. The proposed development incorporates an extension to the existing paper mill, including an expansion to the existing energy centre.

4.2.10 Due to the low additional number of HDV and LDVs trips predicted to be generated during the operational phase of the development, there is predicted to be an 'insignificant' effect on air quality from road vehicle emissions.

4.2.11 A dispersion modelling assessment has been undertaken to quantify potential impacts on air quality, at both human and ecological receptors, arising from increased combustion emissions generated during the operational phase of the Proposed Development. In accordance with the stated EPUK & IAQM assessment methodology, the operational phase impact on air quality arising from combustion plant emissions is considered to be 'not significant' at all considered human receptor locations.

4.2.12 Impacts on Critical Levels at considered ecological designations are less than 1% of the annual mean NOx and SO2 Critical Levels and less than 10% of the 24-hour mean NOx level. Furthermore, impacts on Critical Loads at considered ecological designations are less than 1% of the relevant nutrient nitrogen and acidification Critical Loads. Therefore,

impacts on are predicted to result in 'no likely significant effects (alone and in-combination)' at all considered ecological receptors.

4.2.13 As such, it is not considered that air quality represents a material constraint to the development proposals, which conform to the principles of Planning Policy Wales, and the Bridgend County Borough Council Local Plan.

Point source emissions to water

Effluent Treatment Plant (ETF)

4.2.14 The paper mill uses freshwater in the production process for stock preparation and process water. Based on a fresh water consumption of 6.5 m³ per tonne, the new paper machine development will require approximately 488,000 m³ of freshwater per year. Freshwater for papermaking is abstracted from the River Llynfi and the Nant Gwyn Stream. The Mill operates a biological treatment plant utilising activated sludge. Water demand for the papermaking operations is supported by a recycling process at the ETP. All papermaking process wastewater is subject to treatment at the ETP before discharge in to the River Llynfi. The existing Environmental Permit strictly controls the discharge with limits for suspended solids, BOD, pH and temperature amongst others.

4.2.15 The increase in production will result in a change in the demand for water and a change in the volume of effluent produced.

4.2.16 Any associated change in abstraction and discharge volumes will be accommodated within existing permit allowances and the current on-site effluent treatment plant has sufficient capacity to receive and treat the projected flows.

4.2.17 The overall discharge from Bridgend Paper Mill, including two paper machines, will amount to 3,954 m³ / day (maximum flow rate). Compared to the permitted maximum flow rate of the 27,300 m³/day, the utilisation rate of the WWTP's capacity would be approximately 15 %. Based on the overall water mass balance (Appendix 14) the following table summarises existing and new discharge volumes.

Table 4-3: Overview waste water discharge volumes (expressed as m³/day)

Jupiter paper machine		2342
Cooling water	1045	
Process water	1297	
Neptune paper machine		972
Cooling water	243	
Process water	729	
Total Bridgend Paper Mill		3,314
Emission limits in existing permit *		17,500

*at 25 °C

Surface Water Site Drainage

4.2.18 The surface water drainage system of the new development will be connected to the existing drainage system of the site. The majority of the surface water drainage will be uncontaminated and typical of surface water run-off from areas of hardstanding, roofs and roads. The design of the drainage system incorporates oil interceptors and traps. Contaminated water will discharge with the other surface water run-off to the Effluent Treatment Plant where it will be treated before discharged. Adequate facilities for the inspection and maintenance of oil interceptors will be provided and the interceptors will be regularly emptied and de-sludged to ensure efficient operation. The sludge will be disposed of, off-site, by a licensed contractor. All elements of the treatment systems will be regularly monitored to ensure optimum performance and maintenance.

4.2.19 The proposed development complies with the Statutory Standards for Sustainable Drainage Systems produced by Welsh Government and the CIRIA SuDS Manual (C753). A detailed description of the Drainage Concept is presented in Appendix 24.

4.2.20 The installation will operate in accordance with the approved Sustainable Drainage System (SuDS) (Appendix 24) as issued by Bridgend County Council (Application No: D/20/0004/SAB, dated 11th January 2021).

Discharge to Groundwater

4.2.21 There are no proposed point source releases to groundwater associated with the proposed operation of the installation.

Point Source Emissions to Land

4.2.22 Deposition to land of pollutants as a result of air emissions is considered in the air quality assessment (Appendix 22). There will be no solid residues formed that will be disposed of to land. As per the existing Bridgend Paper Mill, the new installation will generate no emissions to land.

4.3 Operating Techniques

4.3.1 The main activity of the new development is the production of a range of hygienic paper tissue products from virgin wood-pulp and recycled paper from a single paper machine.

Technical Standards

4.3.2 The new plant will be designed and operated in accordance with the relevant sections of the documents:

a How to comply with your environmental permit (NRW 2016)

b Best Available Techniques (BAT) Reference Document for the Production of Pulp, Paper and Board (EU 2015)

4.4 General Requirements

Control of Fugitive Emissions to Air

4.4.1 The only potential source of fugitive emissions on the site is potential release of unburned natural gas. The risk of fugitive emissions to air is minimised by scheduled maintenance of natural gas containment and by using fuel gas leak detection systems and alarms. Other potential fugitive emissions to air comprise releases of carbon dioxide from the deluge fire fighting system. This will be restricted to emergency fire-fighting events and routine testing or maintenance.

Control of Fugitive Emissions to Water

4.4.2 Surface water quality may potentially be affected by the discharge of contaminated water from the site drainage system during operation. Contamination may arise from vehicle usage and parking, where leaks of oils and petrol occur and can enter the drainage system.

4.4.3 Accidental spillages during loading or unloading operations can also occur and the spilled substances enter the drainage system. Spill kits will be maintained to seal drains and to confine spills should they occur. The maintenance and testing of these kits will be part of the ISO14001 Environmental Management System to be developed.

4.4.4 Bunded enclosures will be provided around equipment that contains oil and (process) chemicals, and they will have a capacity to hold minimum of 110% of the oil volumes, plus an allowance if applicable for the volume of fluid from any associated fire protection system. These areas will be clearly marked and maximum storage capacities clearly stated. Bunds will be impermeable, resistant, will contain no outlet, will drain to a blind collection point (sump), will contain no penetration of contained surfaces, will be designed to catch leaks from fittings and will have fill points inside the bund.

4.4.5 Locations of storage areas and containment measures for (process) chemicals are shown in Appendix 15 and 17.

Control of Odour

4.4.6 None of the air emissions from the new plant will give rise to odours beyond the boundary of the sites.

Control of Noise and Vibration

4.4.7 Noise may be created from the site operations. There are sensitive receptors within 500 m of the site and so a noise and vibration assessment has been undertaken. The full report is presented at Appendix 23. Design and construction of all units and machines involved in the process comply with the current state of the art in the field of noise reduction. Especially exposed units are either installed in closed rooms and / or encased appropriately. The construction of buildings is based on the targets set out in Appendix 23 with regard to sound insulation values of components.

4.4.8 Noise is successfully managed at Bridgend Paper Mill by employing the following techniques:

- Minimisation of noise production in design (i.e. sound insulation of roofs and walls);

- Control of significant noise generating activities (by employing enclosure and silencers);
- Appropriate zoning – noisy operations are located at a significant distance from residential areas.

4.4.9 It is anticipated that the overall noise produced by the development will be of a constant and steady nature, with the inclusion of slightly perceptible tonal content. The design of the plant has incorporated a number of mitigation measures to reduce the noise emitted into the local environment.

4.4.10 These mitigation measures include:

- Use of inherently quiet plant equipment, silencers, sound insulation of buildings and technical equipment, and sound attenuation;
- All plant items shall be controlled to minimize noise of an impulsive or tonal nature;
- Monitoring of noise after completion of construction phase and improvement programme to minimise plant noise where possible;
- Distance attenuation;
- Plant and equipment will be maintained to minimise emissions of noise;
- In the event of a complaint, the Operator will follow a complaints procedure to record and act on the complaint, and to inform NRW.

4.4.11 The results of the noise assessment (Appendix 23) indicate that significant adverse noise or vibration effects would not be expected as a result of operating the facilities.

Control of dust

4.4.12 The fibre is delivered by truck, mostly in loose form, with some in bales. The trucks are unloaded within the raw material storage building where the bales and the loose recovered paper are stored. The bales are transported to the storage boxes by clamp-lift-trucks and the loose paper by shovel-loaders. The raw material storage building has a sufficient storage capacity to ensure that no paper will have to be unloaded or stored outside the building. Doors and gates will be kept close all the time. Loose paper and waste paper will be re-fed to the process through a paper reject system.

4.4.13 General management techniques described in this section as well as good housekeeping will ensure that no significant dust emissions or litter of any kind will occur.

General techniques to reduce the risks

4.4.14 Having identified the hazards and their level of risk, various general techniques will be adopted to prevent accidents and minimise their environmental consequences:

- Adequate storage arrangements for raw materials, products and wastes will be provided and identified;
- The process design and control aspects, including hard-wired interlocks, will ensure that control is maintained in emergency situations;
- Preventative techniques such as suitable barriers to prevent damage to equipment from the movement of vehicles will be included where appropriate;

- Appropriate containment will be provided, e.g. bunds, catchport / catchpits, double skinned vessels;
- Techniques and procedures to prevent overfilling of storage tanks (liquid or powder) will be provided, such as level measurement, independent high-level alarms, high level cut-off and batch metering;
- Adequate redundancy or standby plant will be provided with maintenance and testing to the same standards as the main plant;
- Installation security systems to prevent unauthorised access will be provided as appropriate, including maintenance arrangements where necessary;
- There will be an installation log/diary to record all incidents, near misses, changes to procedures, abnormal events and findings of maintenance inspections;
- Procedures to identify, respond to and learn from such incidents will be established;
- The roles and responsibilities of personnel involved in accident management will be identified and trained as part of the training scheme;
- Clear guidance will be available on how each accident scenario is managed e.g. containment or dispersion, to extinguish fires or let them burn in a contained manner;
- Procedures will be in place to avoid incidents occurring as a result of poor communication among operations staff during shift changes and maintenance or other engineering work;
- Safe start-up and shutdown procedures will be in place;
- Communication routes will be established with relevant authorities and emergency services before and in the event of an accident. Post-accident procedures will include the assessment of harm caused and steps needed to redress these;
- Appropriate control techniques to limit the consequences of the accident such as oil spillage equipment, isolation of drains, alerting of relevant authorities, evacuation procedures will be in place;
- Personnel training requirements will be identified and provided where necessary;
- The site speed limit for road vehicles is 10mph in order to minimise the risk of collisions and the corresponding consequences
- Process waters, site drainage waters, emergency firewater, chemically contaminated waters and spillage of chemicals, where appropriate, will be contained and where necessary routed to the effluent system, with provision to contain surges and storm water flows, and treated before emission to controlled waters or sewer. Sufficient storage will be provided to ensure that this can be achieved. There will also be spill contingency procedures to minimise the risk of accidental emission of raw materials, products and waste materials and to prevent their entry into water. The emergency firewater collection system takes account of the additional firewater flows or fire fighting foams;
- For accidental emissions from vents and safety relief valves/bursting discs, consideration will be given to the possibility of containment or abatement. Attention will be focussed on reducing the probability of the emission;

- For drainage systems procedures will be in place to ensure that before treatment or disposal, the composition of the contents of a bund sump or sump connected with a drainage system are checked; drainage sumps will be equipped with a high-level alarm or sensor with automatic pump to storage (not to discharge); a system will be in place to ensure that sump levels are kept to a minimum at all times;

Decommissioning

4.4.15 The lifetime of the plant is currently anticipated to be of the order of 30 years. It will be so constructed as to enable the replacement and upgrading of key components in line with technological change.

4.4.16 An intrusive investigation has been undertaken of ground conditions and the water environment at the development site to establish base-line environmental conditions prior to the commencement of construction and operation of the facility. The results of the investigation are presented in the amendment of the Site Investigation Report (Appendix 25) and the Environmental Statement (Appendix 28). They give a baseline for future comparison.

4.4.17 Infrastructure dedicated to the facility will be removed or taken out of use if no further immediate use is required for it on that site. Disconnection of site services, whether partial or complete will be considered before dismantling work commences on site. Plant equipment, where possible, will be dismantled and, if necessary, decontaminated on site, followed by inspection and if necessary further decontamination once the equipment has been removed from position and before it has been removed from site.

4.4.18 Despatch of equipment from site whether as a saleable asset, e.g. as spare parts to other paper production facilities, or as scrap, will be accompanied by a Certificate of Decontamination.

4.4.19 All equipment containing chemicals will be drained with the chemical stored in appropriate containers and removed offsite to reduce the potential for spillage.

4.4.20 The site will be left in a safe manner. Trenches, pits and excavations shall be made safe by suitable back-fill, or access denied by suitable fencing and notices coupled with adequate regular site inspections until responsibility for the site has been transferred to the new owners.

4.4.21 Buildings and facilities which cannot be re-used will be demolished with all materials recycled or disposed of following Duty of Care. Since the facility will be constructed as asbestos free asbestos surveys will not be required before decommissioning is started.

4.4.22 Buildings and facilities which are to remain in place for other commercial or industrial purposes will be cleaned thoroughly internally and externally to avoid any potential risk of pollution. If these buildings or facilities are to continue for activities for which the PPC permit is no-longer required a suitable programme of reconstruction and timescale for completion will be agreed with the Environment Agency to achieve the best environmental outcome and to minimise waste.

4.4.23 In the event of a definitive cessation of all activities a full site closure report will accompany the surrender of the site licences to the relevant regulatory bodies and consultees.

4.5 Types and Amounts of Raw Materials

4.5.1 The principal raw materials used in the tissue paper production process are:

- Fibre (broke and virgin)
- Process chemicals
- Water
- Lubricating oil
- Transformer oil

4.5.2 Appendix 6 and 15 show which raw materials are used in the production process.

Fibre

4.5.3 The tissue production process is based on the manufacturing of raw material such as fibre. Fibre can be fresh (virgin fibre) or derived from waste paper (broke fibre). Virgin fibre usually derives from wood, although it can also originate from straw or sugar cane residue. The fully operational facility will utilise approximately 65,000 tonnes of virgin fibre per annum (tpa) and 15,000 tpa of broke fibre (waste paper) to produce approximately 75,000 tpa tissue paper.

Process Chemicals

4.5.4 A list of the main paper making additives and their estimated consumption are presented in the following table. Safety information sheets are given in Appendix 16. The table below shows estimates of the amounts of raw materials used and stored the facility.

4.5.5 It should be noted that the table only includes chemicals that will be stored for the new 'Neptune' paper machine. Existing storage locations and capacities of chemicals for the existing paper machine are not included.

Table 4-3: Types and amounts of raw materials

Table – Types and amounts of raw material				
Installation / Activity name	'Neptune' Paper machine			
Capacity	206 tonnes of tissue paper per day, 75,000 tonnes per year			
Schedule 1 activity	Description of raw material and composition material	Maximum amount (tonnes)	Annual throughput (tonnes)	Description of raw material use including main hazards*
Producing tissue paper in industrial plant where the plant has a production capacity of more than 20 tonnes per day.	Sodium Hypochlorite 15%	35	1975	H290, H314, H400, H411
	Odourless Kerosene	1	58	H304
	Retention Aid	4	88.9	n.c.
	Adhesion Crepetech DT	12	206,7	n.c.
	Biocide Busperse 2454	3	66.2	n.c.
	Flocculant Bufloc 5563	2	29.2	H319, H412
	Coagulant Bufloc 5290	1	7.8	n.c.
	Antifoam Bubreak 4243	2	16.4	n.c.
	Modifier Palmod	2	9.6	H316, H320
	Stickies Bufloc 59Lo	2	19.2	H317, H318
	Stickies Bufloc 5031	2	34.2	H412
	Core Pick Up	1	1.6	H317

*Hazard statements:

n.c.	not classified
EUH066	Repeated exposure may cause skin dryness or cracking
H290	Corrosive to metals
H304	May be fatal if swallowed and enters airways
H314	Skin corrosion
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H400	Acute aquatic toxicity
H411	Chronic aquatic toxicity
H412	Harmful to aquatic life with long lasting effects

Chemicals Storage Areas

4.5.6 Appendices 15 and 17 give more detailed information of the medium stored and the material and location of containment and storage tanks.

4.5.7 All parts of the system where chemicals are handled are designed to ensure that the substance concerned cannot leak in the course of normal operations. The system is designed to be stable and resistant to any anticipated mechanical, thermal and chemical influences. Where required, the materials and plant components used have the appropriate design approval and test marks. Any leakages which may arise in any part of the system can be quickly and reliably detected. Before being set into operation, any systems subject to obligatory testing for storing or handling chemicals will be inspected by a technical expert.

4.5.8 All chemicals and oils used on site will be stored within a bunded area sized to accommodate the greater of 110 % of the contents of the largest tank within the bund or 25 % of the total tank contents. All spillages will be retained within the bunded areas and treated as necessary prior to disposal off-site in a manner that ensures no adverse environmental impact. A leakage monitoring system is located in the paper machine's control room which is constantly manned.

Fresh Water

4.5.9 The paper mill uses freshwater in the production process for stock preparation and process water. Based on a fresh water consumption of 6.5 m^3 per tonne, the new paper machine development will require approximately 488,000 m^3 of freshwater per year. Freshwater for papermaking is abstracted from the River Llynfi and the Nant Gwyn Stream. The increase in production will result in a change in the demand for water. Any associated change in abstraction volumes will be accommodated within existing permit allowances. A water mass balance diagram for the facility is shown in Appendix 14.

4.5.10 The use of water will be monitored, and the EMS will provide a mechanism for reducing its use where commercially viable. Other losses from the steam / water cycle will be minimised by good maintenance. Minor quantities of water will be used for domestic / sanitary purposes (drinking, washing, etc).

Lubricating and transformer oil

4.5.11 Lubricating oil will be used in the mechanical equipment of the paper machine as well as the new converting lines. Occasional top up or replacement will be required. Lubricating oil will be stored in storage tanks within the paper machine building.

4.5.12 Transformer oil (free of pcb) will be used in oil cooled transformers. Occasional top up or replacement will be required. Transformer oil will be stored in a storage tank within the paper machine building.

4.5.13 Supplies of the lubrication oil and transformer oil and other materials in small quantity will be delivered to the site by road. All valves, pipework and couplings associated with the filling/emptying of oil storage tanks will be contained within a bund surrounding the tank.

4.6 Monitoring

Papermaking

Raw materials

4.6.1 The main process material used by the new paper machine is broke and virgin fibre. The fully operational facility will utilise approximately 80,000 tonnes of fibre per year. No on-site sorting of raw material is performed. The quality of material is ensured by contractual arrangement with suppliers to deliver material of suitable quality. If excessive contaminants are noted during unloading, the load is returned to the supplier.

Water usage

4.6.2 The facility uses an automatic water management system of the manufacturer. This includes the appropriate dimensioning of all chests and storage tanks including automatic metering and control. All monitoring will be undertaken in full accordance with the Environmental permitting Technical Guidance for the Pulp and Paper Sector (BAT Reference Document for the Production of Pulp, Paper and Board, EU 2015).

Monitoring releases to air

4.6.3 The only significant point source for emissions to air is the exhaust flue at the 'Neptune' machine (Yankee) hood exhaust vent. Facilities will be provided for the automatic measurements of oxides of nitrogen (NO and NO_2). The location of the ports will comply with NRW Guidance Note M1 Sampling Requirements for Stack Emission Monitoring, Version 6, January 2010.

4.6.4 Continuous measurement of emissions by the operator is proposed. The Operator will install suitable automated monitoring systems (AMS) for measurement of NOx at the air emission release points that will have MCERTS certification.

Monitoring energy consumption

4.6.5 Energy consumption is monitored and metered throughout the facility. The detailed metering and monitoring system of the new paper machine 'Neptune' is described in Appendix 7.

Noise monitoring

4.6.6 An environmental noise survey following the general procedures outlined in BS4142:2014+A1:2019 will be carried out within twelve months of the plant being commissioned. This will compare measurements with the ambient noise levels and the results of the BS 4142 assessment described in the Noise assessment (Appendix 23). The survey will include measurements of the sound pressure levels at the locations identified as sensitive receptor location. The results and measurement conditions are recorded and retained for 5 years.

4.6.7 The General Manager of the facility will be notified if any of the sound pressure levels recorded exceed the limits specified in the site's planning consent, and if noise complaints are likely to occur. If required, an action plan is devised and implemented to reduce levels below those specified in the site planning consent and reduce the probability

of noise complaints. When the work is complete, the noise levels are then monitored again as described above.

4.6.8 Once the plant is fully operational, noise monitoring will be undertaken by external consultants on a 5-yearly basis as described in Appendix 23.

Vibrations

4.6.9 During normal operation of the paper mill vibrations or inadmissible low-frequent noise do not occur. A source of vibration related to the operation of the development would be vehicles on the road network including trucks serving the proposed facility. However, these sources already exist, and there would be no significant change in vibration magnitude, simply a small increase in event numbers. Hence any impact from vibration related to additional traffic would be insignificant.

Control and Monitoring of Dusts, Fibres and Particulates

4.6.10 The site has a 10mph speed limit and the benefit of a fully surfaced entranceway and internal road system which are maintained free of loose material to minimise the potential for dust generation by vehicle movements. Water is available on site for dampening any material liable to cause a dust nuisance during shredding, loading or unloading.

Monitoring during commissioning

4.6.11 The commissioning of the paper machine will include the monitoring of the emissions to ensure compliance with the emission limits required. The protocol for doing so will be developed with the technology supplier, but as a minimum will meet the requirements of NRW. The Plant will not be considered to be fit for operations unless the commissioning tests have been successfully completed i.e. that the plant has shown it can operate within the required emission limits.

Monitoring standards

4.6.12 All monitoring will be undertaken in full accordance with the EA Technical Guidance Notes M1 and M2 and the European IPPC Bureau's Reference Document on the General Principles of Monitoring (EU 2003).

Environmental Monitoring beyond the installation

4.6.13 The conclusion of the Environmental Statement is that the residual impacts, for air, water and noise, are all 'Not Significant' and, as such, no continuous off-site monitoring is proposed for the new plant.

4.7 Environmental Impact Assessment

4.7.1 A planning application for the new facility was submitted to Bridgend County Borough Council Borough County Council in February 2020. Permission for development was granted in September 2020 (Appendix 29).

4.7.2 As required by the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017, the planning application was also accompanied by an Environmental Statement (ES) (Appendix 28). The ES provided details on many aspects of the scheme, which are relevant to the Environmental Permitting process. A copy of the ES, and technical statements of the detailed impact assessment studies undertaken of air quality, water environment and noise and vibration are included in Appendices 20, 22 and 23.

4.8 Resource Efficiency and Climate Change

Basic measures for the improvement of energy efficiency

4.8.1 The Operator will, as already required by the existing Environmental Permit;

- take appropriate measures to ensure that energy is used efficiently in the activities;
- review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- take any further appropriate measures identified by a review.

4.8.2 The new facility will be designed with careful attention being paid to all normal energy efficiency design features, such as high efficiency motors, high standards of cladding and insulation etc. The plant is expected to be the most efficient in terms of water and energy use on the market. The new paper machine will use a fully digitalised process management system and business management capability monitoring and measurement of consumption and traceability.

4.8.3 In terms of energy efficiency, the design of the facility takes due regard of the energy efficiency techniques outlined in the Best Available Techniques (BAT) Reference Document for the Production of Pulp, Paper and Board (EU 2015). The following features facilitate the most effective use of energy:

- High efficiency motors will be used where practicable to reduce the parasitic load of energy plant and equipment; motors and drives with adjustable speed drives (ASDs) will be used wherever possible;
- Pipes, furnaces etc. will be insulated to prevent heat loss;
- Steam pipes will be arranged to minimise their length and reduce heat loss;
- Water pipes will be configured to minimise their lengths to reduce pumping losses;
- Unnecessary releases of steam and hot water will be avoided to minimise the loss of boiler water treatment chemicals and the heat contained within the steam and water;
- Only equipment that meet the standards of the Energy Technology List of the ECA Energy Scheme will be used;

- The ETP is designed to use mainly gravitational flow. Pumps will be needed for e.g. pumping of return sludge form the secondary clarifiers back to the aeration tank;
- All stages of the treatment process will be closely monitored to assure direct action in case of variation from specifications;
- If pumps are needed, they will be designed according to recent energy saving standards. The majority of the pumps will be equipped with frequency converters thus the power consumption can be adjusted to the actual flow conditions;
- The flow conditions will be measured constantly using flow meters installed at all major pipes;
- All plant is operated and maintained to ensures that energy efficiency is maintained, e.g. regular lubrication of moving parts, cleaning of heat transfer surfaces;
- Doors and openings to all buildings will be kept close to prevent loss of tempered air;
- Lighting systems will be designed in accordance with CIBSE Guidance for industrial sites of this type for both normal operations and emergency lighting conditions;
- Building walls will be made of concrete sandwich elements with at least 10 cm heat / sound insulation and facing concrete. Sub structures for buildings consist of liner trays or partly pre-cast concrete elements.

Breakdown of any changes to the energy - Energy flows

4.8.4 The Bridgend Paper Mill consumes significant amounts of energy in the form of electricity and steam within the recycling and production processes. The new paper machine requires. The existing installation includes a CHP power plant with a net thermal input of approximately 50 MW which supplies the entire steam demand of the papermaking operation and approximately 50% of the electrical power of the mill. The current CHP plant has the capacity to meet the additional energy demand of the new paper machine which amounts to approximately 5,800 kW / h, i.e. 51 GWh / a.

Operation and Maintenance Procedures

4.8.5 An energy efficiency plan will be included into the operation and maintenance procedures of the plant ensuring maximum, practical, sustainable, safe and controllable electricity generation. This plan will be reviewed regularly as part of the ISO 50001 process. During normal operation, procedures will be reviewed and amended, where necessary, to include improvements in efficiency as and when proven new equipment and operating techniques become available.

Climate change levy agreement

4.8.6 CO_2 is a greenhouse gas and contributes to global warming. The use of a gas turbine, heat recovery steam generator and condensing steam turbine minimises the quantities of CO_2 emitted compared with other combustion techniques. Moreover, the use of steam (i.e. heat) for production purposes results in the highest efficiency of fuel usage.

4.8.7 WEPA UK is part of an Umbrella climate change agreement for the paper sector (Agreement dated 6th March 2013) (Appendix 11).

Justification for usage of raw materials (process chemicals and water)

4.8.8 A schematic of overall inputs and outputs to the process is given in Appendix 6.

Efficient use of raw materials

4.8.9 WEPA UK will

- maintains a list of the raw materials and their associated properties (Appendix 15 and 16); and
- regularly review any new, less polluting, raw materials and will implement them if they reduce their environmental impact.

4.8.10 The operator will take appropriate measures to ensure that raw materials are used efficiently and will maintain records of raw materials used on site. Materials used on site will be recycled and re-used, wherever possible. Where possible, raw materials that minimise environmental impact were selected. Consideration was given to such factors as degradability, bioaccumulation potential and toxicity. A regular review will be undertaken to ensure raw materials are appropriate for use, consumption optimised and opportunities for reduction of use and improvements identified. Alternative raw materials will be evaluated for their environmental impact on an on-going basis and subject to specific quality requirements; substitution will be given appropriate consideration. Safety Information Sheets of all relevant materials will be held by the Site Manager and located at the facility (also see Appendix 16). Raw materials will be reviewed periodically to identify potentially safer alternatives.

4.8.11 Where not specified, consumables and chemicals will be supplied to standard specifications offered by main suppliers. All chemicals will be handled in accordance with COSHH Regulations as part of the EMS and full product data sheets will be available on site.

4.8.12 Periodic reviews of all materials used will be made in the light of new products and developments. Any significant change of material, where it may have an impact on the environment, will not be made without firstly assessing the impact and seeking approval from NRW.

Water

4.8.13 A constant supply of fresh water is required, principally for process purposes, a small amount of which is required for consumptive use. Fresh water will be taken from the River Llynfi. The demand on fresh water is determined by the product, the daily production capacity, the technology used, and water efficiency measures applied. According to the Operator experience, a continuous fresh water demand of 6.5 m^3 per tonne of product is calculated for the new paper machine, relating to the production capacity. This determines a yearly demand on fresh water for the operation of the paper machine of approximately 488,000 m^3.

4.8.14 Fresh water demand complies with the Environmental permitting Technical Guidance for the Pulp and Paper Sector (BAT Reference Document for the Production of Pulp, Paper and Board, EU 2015).

4.8.15 A water mass balance diagram for the facility is shown in Appendix 14.

4.9 Waste

4.9.1 The principal waste arising from the operation of the plant include:

- Filters on air intakes will require changing periodically,
- Lighting units replaced as required,
- Waste from staff rooms etc.,
- Oily sludge from cleaning of oil interceptors,
- Waste oils and lubricants; oil residues arising from maintenance activities,
- Packaging waste (timber, cardboard, plastic etc.).
- Sludge form waste water treatment

4.9.2 Waste generated during annual outages varies according to the scope of the outage works, and consists mainly of oil residues and scrap metals. The quantities of waste generated are relatively low. Waste will be segregated and stored in labelled containers until disposal off-site by a qualified contractor. The sludge produced during the paper making process (as waste product) is collected, properly treated and reintroduced in the paper production process itself. The excess sludge that cannot be reintegrated is dried and used to make alternative agricultural products.

4.9.3 There is no on-site disposal of wastes and the site does not operate as a waste disposal facility. All waste produced in the installation is closely monitored and disposal routes, including, re-use and recycling, are selected through a process of consideration of appropriate options.

4.9.4 A waste minimisation program will be used as a systematic approach to minimising the amount of waste and will be integrated into the operation of the plant. A comprehensive system will be used to maintain a record of the quantity, nature, origin, destination, frequency of collection, mode of transport and treatment method of any waste which is disposed of in accordance with the relevant regulations.

4.9.5 As part of the EMS waste minimisation audits are carried out routinely. The applicant will carry out regular inspections of waste storage and transfer areas to ensure waste are properly segregated and containers are sealed correctly and maintained in good condition. All waste containers will be clearly labelled. Records of all waste transfers off-site are maintained on site.

SECTION 5

INFORMATION IN SUPPORT OF PART F

5 Information in Support of Part F1

5.1 General Information, Operational Risk Assessment (OPRA)

5.1.1 The existing Bridgend Paper Mill will continue to operate as per the conditions of the existing Environmental Permit Number EPR/EP 3738NG.

5.1.2 As this application for a substantial variation only includes the new project, i.e. the second paper machine ‘Neptune’, the attached OPRA file (Appendix 30) is limited to the proposed development and its emissions.

5.1.3 Therefore, permitted emissions of the existing paper mill have not been included in any significant detail in this Operational Risk Assessment.

5.2 Application Checklist

Question reference	No. and title of Appendix (document reference)		Document section
Part A – Q5a	1	Site Location, 1:15000	SECTION 1.1 and 3.4
Part A – Q5a	2	Detailed site location, 1:1000	SECTION 1.1 and 3.4
Part C2 – Q2b	3	General project description	SECTION 1.1 and 3.2
Part A – Q5a	4	View, sections, elevations	SECTION 1.1
Part A – Q5a	5	3-D representations	SECTION 1.1
Part C3 – Q3a	6	Overall process flow diagram	SECTION 4.3
Part C3 – Q3a	7	Project and process description, monitoring, metering	SECTION 4.3 and 4.6
Part A – Q5a	8	Boundary existing mill site	SECTION 1.1
Part A – Q5a	9	Site layout with application boundary	SECTION 1.1 and 3.4
Part C2 – Q3d	10	Integrated management structures (IMS)	SECTION 3.3
Part C2 – Q3d	11	Environmental management system (EMS)	SECTION 3.3
Part C3 – Q3a	12	Fire protection system	SECTION 6
Part C3 – Q6	13	Energy efficiency, climate change	SECTION 4.8
Part C3 – Q3c	14	Water mass balance	SECTION 4.5 and 4.8
Part C3 – Q3b, Q3c	15	Process chemicals, consumption, storage, location	SECTION 4.4, 4.5 and 4.8
Part C3 – Q3b, Q3c	16	Safety information sheets (SIS)	SECTION 4.4, 4.5 and 4.8
Part C3 – Q3b, Q3c	17	Drawings location process chemicals	SECTION 4.4 and 4.5
Part C3 – Q3c	18	Freshwater abstraction licence	SECTION 3.2
Part C3 – Q2	19	Effluent treatment plant, description baseline	SECTION 4.2
Part C2 – Q6	20	Water resources report	SECTION 3.5
Part C3 – Q2	21	Emission points noise and air	SECTION 4.2
Part C2 – Q6	22	Air quality assessment	SECTION 3.5 and 4.2
Part C2 – Q6	23	Noise assessment and Noise Monitoring Scheme	SECTION 3.5
Part C3 – Q2	24	Surface water drainage system SuDS	SECTION 4.2
Part C2 – Q5c	25	Amendment Site Condition Report	SECTION 3.4
Part C3 – Q3a	26	Mill site external lighting	SECTION 6
Part C3 – Q3a	27	Mill site fence	SECTION 6
Part C2 – Q6	28	Environmental Statement	SECTION 3.5 and 4.7
Part C3 – Q5	29	Planning permission, decision notice EIA	SECTION 4.7
Part F1 – Q2	30	Operational Risk Assessment (OPRA)	SECTION 5
Part C2 – Q1a	31	Minutes of pre-app meeting	SECTION 3.1

SECTION 6

BAT JUSTIFICATION

6 BAT Assessment

6.1 Introduction

6.1.1 This section identifies where operations of the proposed facility meet BAT requirements.

6.1.2 The Environmental permitting Technical Guidance for the Pulp and Paper Sector (*BAT Reference Document for the Production of Pulp, Paper and Board,* EU 2015) gives definitions of indicative BAT for the range of aspects of operation of the new installation.

6.1.3 As WEPA's existing paper mill is an existing permitted activity, it has already been assessed by NRW to be managed with due regard to appropriate measures (Best Available Technique (BAT). No changes are proposed to the operation of this existing activity, other than the change in the regulations to include it as a Schedule 1 Listed Activity. Therefore, the following BAT assessment would focus on the newly proposed paper machine and would not consider any existing activity such as the operation of the ETP and the CHP plant.

6.1.4 The following assessment replicates only the BAT conclusions relevant to the particular type of the new activity, i.e. new paper machine 'Neptune'.

6.2 BAT Assessment

BAT Conclusion Number	Summary of BAT Conclusion requirement	Assessment of compliance with BAT conclusion Techniques of 'Neptune' paper machine (refer to section or Appendix)
General		
1	**BAT 1. In order to improve the overall environmental performance of plants for the production of pulp, paper and board, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features:** (a) commitment of the management, including senior management; (b) definition of an environmental policy that includes the continuous improvement of the installation by the management; (c) planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment; (d) implementation of procedures paying particular attention to: (i) structure and responsibility (ii) training, awareness and competence (iii) communication (iv) employee involvement (v) documentation (vi) efficient process control (vii) maintenance programmes (viii) emergency preparedness and response (ix) safeguarding compliance with environmental legislation; (e) checking performance and taking corrective action, paying particular attention to: (i) monitoring and measurement (see also the Reference Document on the General Principles of Monitoring) (ii) corrective and preventive action (iii) maintenance of records (iv) independent (where practicable) internal and external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained; (f) review of the EMS and its continuing suitability, adequacy and effectiveness by senior management; (g) following the development of cleaner technologies;	The mill operates a local Environmental Management System (EMS) which is fully integrated and certified to ISO14001: 2015 (Appendix 11). The Operator will update its existing EMS, in accordance with ISO 14001 to include all new plant. General techniques to reduce environmental risks are described in Section 4.4.

BAT Conclusion Number	Summary of BAT Conclusion requirement	Assessment of compliance with BAT conclusion Techniques of 'Neptune' paper machine (refer to section or Appendix)
	(h) consideration for the environmental impacts from the eventual decommissioning of the installation at the stage of designing a new plant, and throughout its operating life; (i) application of sectoral benchmarking on a regular basis. Technical considerations relevant to applicability The scope (e.g. level of details) and nature of the EMS (e.g. standardised or non-standardised) will generally be related to the nature, scale and complexity of the installation, and the range of environmental impacts it may have.	
Materials management and good housekeeping		
2	**BAT 2. BAT is to apply the principles of good housekeeping for minimising the environmental impact of the production process by using a combination of the techniques given below.** a) Careful selection and control of chemicals and additives b) Input-output analysis with a chemical inventory, including quantities and toxicological properties c) Minimise the use of chemicals to the minimum level required by the quality specifications of the final product d) Avoid the use of harmful substances (e.g. nonylphenol ethoxylate-containing dispersion or cleaning agents or surfactants) and substitution by less harmful alternatives e) Minimise the input of substances into the soil by leakage, aerial deposition and the inappropriate storage of raw materials, products or residues f) Establish a spill management programme and extend the containment of relevant sources, thus preventing the contamination of soil and groundwater Proper design of the piping and storage systems to keep the surfaces clean and to reduce the need for washing and cleaning	Locations of storage tanks and containment measures for (process) chemicals are shown in Appendices 15 and 17. The Management Techniques described in section 4.4 as well as good housekeeping will ensure that environmental risks are reduced. Safety information sheets are given in Appendix 16.
Water and waste water management		
5	**BAT 5. In order to reduce fresh water use and generation of waste water, BAT is to close the water system to the degree technically feasible in line with the pulp and paper grade manufactured by using a combination of the techniques given below.** a) Monitoring and optimising water usage b) Evaluation of water recirculation options	All waste and process water will be re-used in the process where possible. Excess waste water from these sources will be discharged to the Effluent Treatment Plant located on the site. The increase in production will result in a change in the demand for water and a change in the effluent produced. Any associated change in abstraction and discharge volumes will be accommodated within

BAT Conclusion Number	Summary of BAT Conclusion requirement	Assessment of compliance with BAT conclusion Techniques of 'Neptune' paper machine (refer to section or Appendix)
	c) Balancing the degree of closure of water circuits and potential drawbacks; adding additional equipment if necessary d) Separation of less contaminated sealing water from pumps for vacuum generation and reuse e) Separation of clean cooling water from contaminated process water and reuse f) Reusing process water to substitute for fresh water (water recirculation and closing of water loops) g) In-line treatment of (parts of) process water to improve water quality to allow for recirculation or reuse	existing permit allowances and the current on-site effluent treatment plant has sufficient capacity to receive and treat the projected flows. The existing Effluent Treatment Plant is compliant with BAT.
	The BAT-associated waste water flow at the point of discharge after waste water treatment as yearly averages are 1.5 – 10 m³ / t for RCF paper mills without deinking	Refer to Water Mass Balance in Appendix 14 waste water discharge for new paper machine: 4.4 m³ / t
Energy consumption and efficiency		
6	**BAT 6. In order to reduce fuel and energy consumption in pulp and paper mills, BAT is to use technique (a) and a combination of the techniques given below.** a) Use an energy management system that includes all of the following features: i. Assessment of the mill's overall energy consumption and production ii. Locating, quantifying and optimising the potentials for energy recovery iii. Monitoring and safeguarding the optimised situation for energy consumption b) Recover energy by incinerating those wastes and residues from the production of pulp and paper that have high organic content and calorific value, taking into account BAT 12 c) Cover the steam and power demand of the production processes as far as possible by the cogeneration of heat and power (CHP) d) Use excess heat for the drying of biomass and sludge, to heat boiler feedwater and process water, to heat buildings, etc. e) Use thermo compressors f) Insulate steam and condensate pipe fittings g) Use energy efficient vacuum systems for dewatering h) Use high efficiency electrical motors, pumps and agitators i) Use frequency inverters for fans, compressors and pumps j) Match steam pressure levels with actual pressure needs	The existing installation includes a CHP power plant with a net thermal input of approximately 50 MW which supplies the entire steam demand of the papermaking operation and approximately 50% of the electrical power of the mill. The CHP plant is natural gas fired with the capacity for supplementary gas oil firing. The plant comprises of two Gas turbines and a shell boiler. The current CHP plant has the capacity to meet the additional energy demand of the new paper machine (approximately 5,800 kW / h, i.e. approx. 51 GWh / a).

BAT Conclusion Number	Summary of BAT Conclusion requirement	Assessment of compliance with BAT conclusion Techniques of 'Neptune' paper machine (refer to section or Appendix)
Monitoring of key process parameters and of emissions to water and air		
9	**BAT 9. BAT is to carry out the monitoring and measurement of emissions to air, as indicated below, on a regular basis with the frequency indicated and according to EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality.** a) continuous monitoring of NOx	The only significant point source for emissions to air is the exhaust flue at the 'Neptune' machine (Yankee) hood exhaust vent. Facilities will be provided for the automatic measurements of oxides of nitrogen (NO and NO_2). Continuous measurement of emissions by the operator is proposed. The Operator will install suitable automated monitoring systems (AMS) for measurement of NOx at the air emission release points that will have MCERTS certification.
Waste management		
12	**BAT 12. In order to reduce the quantities of wastes sent for disposal, BAT is to implement a waste assessment (including waste inventories) and management system, so as to facilitate waste reuse, or failing that, waste recycling, or failing that, 'other recovery', including a combination of the techniques given below.** a) Separate collection of different waste fractions (including separation and classification of hazardous waste) b) Merging of suitable fractions of residues to obtain mixtures that can be better utilised c) Pre-treatment of process residues before reuse or recycling d) Material recovery and recycling of process residues on site e) Energy recovery on- or off-site from wastes with high organic content f) External material utilisation g) Pre-treatment of waste before disposal	All waste produced in the installation is closely monitored and disposal routes, including, re-use and recycling, are selected through a process of consideration of appropriate options. A waste minimisation program will be used as a systematic approach to minimise the amount of waste and will be integrated into the operation of the plant. A comprehensive system will be used to maintain a record of the quantity, nature, origin, destination, frequency of collection, mode of transport and treatment method of any waste which is disposed of in accordance with the relevant regulations. As part of the EMS waste minimisation audits are carried out routinely.
Emissions of noise		
17	**BAT 17. In order to reduce the emissions of noise from pulp and paper manufacturing, BAT is to use a combination of the techniques given below.** a) Noise-reduction programme b) Strategic planning of the location of equipment, units and buildings c) Operational and management techniques in buildings containing noisy equipment d) Enclosing noisy equipment and units e) Use of low-noise equipment and noise-reducers on equipment and ducts	The Operator has carried out a full Noise Assessment (Appendix 23). The results show that the predicted noise rating levels generated by the new plant will be between 30 and 34 dB. Daytime noise rating levels at all receptors are predicted to be at least 10dB below the background level. Six months prior to the installation commissioning date, the Operator will confirm with Natural Resources Wales that the design of the

BAT Conclusion Number	Summary of BAT Conclusion requirement	Assessment of compliance with BAT conclusion Techniques of 'Neptune' paper machine (refer to section or Appendix)
	f) Vibration insulation g) Soundproofing of buildings h) Noise abatement	installation has not changed from that submitted as part of the Noise Assessment.
Decommissioning		
18	**BAT 18. In order to prevent pollution risks when decommissioning a plant, BAT is to use the general techniques given below.** a) Ensure that underground tanks and piping are either avoided in the design phase or that their location is well known and documented. b) Establish instructions for emptying process equipment, vessels and piping c) Ensure a clean closure when the facility is shut down, e.g. to clean up and rehabilitate the site. Natural soil functions should be safeguarded, if feasible. d) Use a monitoring programme, especially relative to groundwater, in order to detect possible future impacts on site or in neighbouring areas. e) Develop and maintain a site closure or cessation scheme, based on risk analysis, that includes a transparent organisation of the shutdown work, taking into account relevant local specific conditions.	Measures of decommissioning are described in paragraphs 4.4.13 to 4.4.21.
Papermaking and related processes		
Waste water and emissions to water		
47	**BAT 47. In order to reduce the generation of waste water, BAT is to use a combination of the techniques given below.** a) Optimum design and construction of tanks and chests b) Fibre and filler recovery and treatment of white water c) Water recirculation d) Optimisation of showers in the paper machine	The facility uses an automatic water management system from the manufacturer. This system provides adequate storage capacity for broke and whitewaters and is closely monitored to ensure that spillages and overflows do not occur (Appendix 7monitoring and metering system).

BAT Conclusion Number	Summary of BAT Conclusion requirement	Assessment of compliance with BAT conclusion Techniques of 'Neptune' paper machine (refer to section or Appendix)
Waste generation		
52	**BAT 52. In order to minimise the amount of solid waste to be disposed of, BAT is to prevent waste generation and to carry out recycling operations by the use of a combination of the techniques given below (see general BAT 20).** a) Fibre and filler recovery and treatment of white water b) Broke recirculation system	Refer to project description (Appendix 3) and process descriptions (Appendix 7).
Energy consumption		
53	**BAT 53. In order to reduce the consumption of thermal and electrical energy, BAT is to use a combination of energy efficient techniques.**	Basic measures for the improvement of energy efficiency are described in Section 4.8

SECTION 7

PROPOSED IMPROVEMENT PLAN

7 Proposed Improvement Plan

7.1 Introduction

7.1.1 Some design details of the proposed plant have not yet been completed and, as such, it is appropriate to suggest some pre-operational conditions in addition to the improvement plan.

7.2 Pre-Operation Conditions

Noise Assessment

7.2.1 Six months prior to the installation commissioning date, the Operator will confirm with Natural Resources Wales that the design of the installation has not changed from that submitted as part of the Noise Assessment and Noise Monitoring Scheme (Appendix 23). If the design has changed the Operator will revise the Noise Assessment and re-submit the assessment to NRW.

7.2.2 Within 6 months of commissioning, the Operator will submit to NRW for approval written proposals for carrying out a noise survey to assess the impact of the Installation when fully operational. The proposals will include the comparison of measured data against the information supplied in the Noise Assessment. This will involve establishing whether any of the noise emissions have a tonal quality (both during daytime and night time operation) likely to give rise to nuisance or complaint. The proposals will also contain details of the methods to be used for the assessment of tonal noise at sensitive receptors and proposed a timeframe within which the survey will be undertaken.

7.2.3 Within 12 months of commissioning the Operator will carry out the noise survey in accordance with NRW written approval.

7.2.4 Within 2 months after completion of the noise survey the Operator will submit a written report of the findings of the noise survey to NRW.

Improvements and Modifications

7.2.5 The Operator will submit for approval a written report which assesses whether any minor improvements and modifications are required. Where such improvements or modifications are required, the Operator shall provide a timescales for their implementation, and, if required, an associated cost-benefit analysis.

Commissioning

7.2.6 The Operator shall provide a written commissioning plan, including timelines for completion, for approval by NRW. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to NRW in the event that actual emissions exceed expected emissions.

7.2.7 Two weeks prior to the installation commissioning date, the Operator will inform NRW prior to paper being produced for the first time.

Monitoring

7.2.8 Six months prior to the installation commissioning date, the Operator will install suitable automated monitoring systems (AMS) for measurement of NOx at the air emission release points that will have MCERTS certification. A report will be submitted to NRW detailing how the installation and operation of the AMS by the Operator will meet with BS EN 14181.

7.3 Improvement Plan

7.3.1 The Operator will notify NRW, in writing, of the date when commissioning of the installation is complete. Within one month of completion of the installation commissioning process, the Operator shall provide a commissioning report, to NRW, detailing:

- The results of the commissioning programme;
- Any significant changes to the information provided in the original permit application;

7.3.2 Within twelve months of completion of the installation commissioning process, the Operator will update its existing Environmental Management System, in accordance with ISO 14001 to include all new plant.

SECTION 8

APPENDICES

8 Appendices

Appendix 1: Site Location, 1:15000

Appendix 2: Detailed site location, 1:1000

Appendix 3: General project description

Appendix 4: View, sections, elevations

Appendix 5: 3-D representations

Appendix 6: Overall process flow diagram

Appendix 7: Project and process description, monitoring, metering

01-FLOW DIAGRAM HW DISSOLVING SYSTEM JUPITER

02-PROCESS DESCRIPTION BALE PULPING SYSTEM JUPITER DEP B

03-PROCESS DESCRIPTION BALE PULPING SYSTEM NEPTUNE DEP B

04-DESCRIPTION BALE HANDLING NEPTUNE HW LINE

05-DESCRIPTION BALE HANDLING JUPITER HW LINE

06-DESCRIPTION BALE HANDLING NEPTUNE SW LINE

07-DESCRIPTION BALE HANDLING JUPITER SW LINE

08-BALE PULPERS TRANSFORMER ROOM EXHAUST

09-BALE PULPERS EXHAUST

10-BALE PULPERS MCC & MV ROOM VENTILATION

11-FLOW DIAGRAM NEPTUNE SOFT AND HARDWOOD LINE

12-FLOW DIAGRAM NEPTUNE MIXING SYSTEM

13-FLOW DIAGRAM NEPTUNE APPROACH SYSTEM

14-FLOW DIAGRAM NEPTUNE MACHINE BROKE PULPER SYSTEM

15-FLOW DIAGRAM NEPTUNE INTERNAL BROKE SYSTEM

16-FLOW DIAGRAM NEPTUNE WHITE WATER SYSTEM 1

17-FLOW DIAGRAM NEPTUNE WHITE WATER SYSTEM 2

18-FLOW DIAGRAM NEPTUNE SHOWER WATER SYSTEM

19-FLOW DIAGRAM NEPTUNE FRESH WATER SYSTEM

20-FLOW DIAGRAM NEPTUNE VACUUM SYSTEM

21-FLOW DIAGRAM NEPTUNE MILL AIR SYSTEM

22-FLOW DIAGRAM PROCESS VENTILATION

23-FLOW DIAGRAM NEPTUNE SEALING WATER SYSTEM

Appendix 8: Boundary existing mill site

Appendix 9: Site layout with application boundary

Appendix 10: Integrated management structures (IMS)

Appendix 11: Environmental management system (EMS)

Appendix 12: Fire protection system

Appendix 13: Energy efficiency, climate change

Appendix 14: Water mass balance

Appendix 15: Process chemicals, consumption, storage, location

Appendix 16: Safety information sheets (SIS)

Appendix 17: Drawings location process chemicals

Appendix 18: Freshwater abstraction licence

Appendix 19: Effluent treatment plant, description baseline

Appendix 20: Water resources report

Appendix 21: Emission points noise and air

Appendix 22: Air quality assessment

Appendix 23: Noise assessment and Noise Monitoring Scheme

Appendix 24: Surface water drainage system SuDS, incl. Approval

Appendix 25: Amendment Site Condition Report

Appendix 26: Mill site external lighting

Appendix 27: Mill site fence

Appendix 28: Environmental Statement

Appendix 29: Planning permission, decision notice EIA

Appendix 30: Operational Risk Assessment (OPRA)

Appendix 31: Minutes of pre-app meeting