

Environment Agency

Review of an Environmental Permit for an Installation subject to Chapter II of the Industrial Emissions Directive under the Environmental Permitting (England & Wales) Regulations 2010 (as amended)

Decision document recording our decision-making process following review of a permit

The Permit number is: EPR/BJ7433IQ
The Operator is: Smurfit Kappa UK Ltd
The Installation is: Snodland Paper Mill
This Variation Notice number is: EPR/BJ7433IQ/V005

What this document is about

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

We have reviewed the permit for this installation against the revised BAT Conclusions for the production of pulp, paper and board industry sector published on 30 September 2014 in the Official Journal of the European Union. Where appropriate, we also considered other relevant BAT Conclusions published prior to this date but not previously included in a permit review for the Installation. In this decision document, we set out the reasoning for the consolidated variation notice that we have issued.

It explains how we have reviewed and considered the techniques used by the Operator in the operation and control of the plant and activities of the installation. This review has been undertaken with reference to the decision made by the European Commission establishing best available techniques (BAT) conclusions (BATc) for production of pulp, paper and board as detailed in document reference EU Official Journal (L 284) of Commission implementing decision 2014/687/EU of 26 September 2014. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position. It also provides a justification for the inclusion of any specific conditions in the permit that are in addition to those included in our generic permit template.

As well as considering the review of the operating techniques used by the Operator for the operation of the plant and activities of the installation, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. Where this has not already been done, it also modernises the entire permit to reflect the conditions contained in our current generic permit template.

The introduction of new template conditions makes the Permit consistent with our current general approach and philosophy and with other permits issued to installations in this sector. Although the wording of some conditions has changed, while others have been deleted because of the new regulatory approach, it does not reduce the level of environmental protection achieved by the Permit in any way. In this document we therefore address only our determination of substantive issues relating to the new BAT Conclusions and any changes to the operation of the installation.

How this document is structured

1. Our decision
2. How we reached our decision
3. The legal framework
4. Annex 1– Review of operating techniques within the Installation against BAT Conclusions.
5. Annex 2a – Review and assessment of derogation request(s) made by the operator in relation to BAT Conclusions which include an Associated Emission Level (AEL) value.
6. Annex 2b - Consultation responses
7. Annex 3 – Improvement Conditions
8. Annex 4– Review and assessment of changes that are not part of the BAT Conclusions derived permit review.
9. Annex 5 - Priority Compliance Issues

1 Our decision

We have decided to issue the Variation Notice to the Operator. This will allow it to continue to operate the Installation, subject to the conditions in the Consolidated Variation Notice that updates the whole permit.

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

The Consolidated Variation Notice contains many conditions taken from our standard Environmental Permit template including the relevant annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Notice, we have considered the techniques identified by the operator for the operation of their installation, and have accepted that the details are sufficient and satisfactory to make those standard conditions appropriate. This document does, however, provide an explanation of our use of “tailor-made” or installation-specific conditions, or where our Permit template provides two or more options.

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under Regulation 60(1) of the Environmental Permitting (England and Wales) Regulations 2010 (a Regulation 60 Notice) on 21 November 2014 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document.

The Notice required that where the revised standards are not currently met, the operator should provide information that

- Describes the techniques that will be implemented before 30 September 2018, which will then ensure that operations meet the revised standard, or
- justifies why standards will not be met by 30 September 2018, and confirmation of the date when the operation of those processes will cease within the installation or an explanation of why the revised BAT standard is not applicable to those processes, or
- justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised standard described in the BAT Conclusions.

Where the Operator proposed that they were not intending to meet a BAT standard that also included a BAT Associated Emission Level (BAT AEL) described in the BAT Conclusions Document, the Regulation 60 Notice required that the Operator make a formal request for derogation from compliance with that AEL (as provisioned by Article 15(4) of IED). In this circumstance, the Notice identified that any such request for derogation must be supported and justified by sufficient technical and commercial information that would enable us to determine acceptability of the derogation request. The Operator made no such request for a derogation.

The Regulation 60 Notice response from the Operator was received on 27 March 2015.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review.

The Operator made no claim for commercial confidentiality. We have not received any information in relation to the Regulation 60 Notice response that appears to be confidential in relation to any party.

2.2 Review of our own information in respect to the capability of the installation to meet revised standards included in the BAT Conclusions document

Based on our records and previous experience in the regulation of the installation we consider that the operator will be able to comply with the techniques and standards described in the BAT Conclusions other than for those techniques and requirements described in BAT Conclusion 1, 45 and 53. In relation to these BAT Conclusions, we consider the operator should be monitored in achieving future compliance.

We have therefore included Improvement Condition 8 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusion 45 are delivered before 30 September 2018. See Annex 1 for details.

2.3a Water Framework Directive (WFD)

Water Framework Directive (WFD)/Dangerous Substance Screen has been reviewed and amended to include priority pollutants under the WFD Hazardous pollutants regime. We have required all Operators to monitor both their discharge to water and the incoming water twice annually for these substances to help better assess the issue and potential sources of any elevated results.

A report has been produced detailing a monitoring programme conducted to assess the chemicals present in waste water and waste paper sludge from permitted paper mill sites to gather further information for WFD purposes and to assess compliance with restrictions. This report along with a review of historically monitored parameters has been used to rationalise the requirement for inclusion of these substances in this standard suite within the permit:

Table 1. Review of historic monitoring within paper & pulp sector		
Substance	Action (remove, retain or add)	Justification
Aldrin	Remove	Limited usage in wood treatment, banned since 1980's across UK & EU. No recent detects
Atrazine	Remove	Agricultural herbicide with little relevance to the sector other than in background water quality. Banned in 2004 across EU. No recent detects.
Azinphos-methyl	Remove	Agricultural insecticide with little relevance to the sector other than in background water quality. Banned in 2006 across EU. No recent detects.
Chlorpyrifos	Retain	OP insecticide with various approvals in UK, some usage in forestry and a recent detect in sludge samples.
Cypermethrin	Retain	SP insecticide still approved for use in forestry applications in UK. PHS/ PS under WFD across EU. Recent detects in effluent samples
Dichlorvos	Remove	OP insecticide removed from market gradually from 2002 in UK and 2012 in EU. Limited direct relevance to the sector and no recent detects.
Dieldrin	Remove	OP insecticide with historic usage for wood treatment. Restrictions and bans since 1970's. Very limited recent detects and no direct relevance to sector.
Endosulphan (Alpha & Beta)	Retain	Organochlorine pesticide whilst recently banned in EU, still in use in many other non-EU countries. Recent detects.
Endrin	Remove	Organochlorine insecticide. Numerous restrictions in place since 1970's. No recent detects.
Fenitrothion	Remove	OP mainly used as an insecticide. EU wide authorisations withdrawn from 2007 and of limited relevance to the sector. No recent detects.
Hexachlorobenzene	Remove	Previous approvals as a fungicide, banned in UK from 1975 and EU since 1998. No recent detects.
Nonylphenols (and NPE's)	Add	Whilst severely restricted across EU for many years. NPE's were detected in 70% of samples in recent study. NP was detected at 6/9 sites. Potential sources unknown.
PCP	Retain	No current approval in UK/EU, but still in use elsewhere as a wood preservative. Several recent detects.
Simazine	Remove	Herbicide no longer authorised across EU and of little relevance to sector. No recent detects.
TBT	Retain	Range of historic uses including wood preservative and is still likely to be in use in a wide range of applications across the world including as is wood preservative. Several recent detects.
Trifluralin	Remove	Main use as agricultural herbicide, no longer approved for use in UK /EU. No recent detects.

Metals

Various metals are required to be monitored within the Pulp & Paper BREF.

The BREF states “relevant metals” and provides the following as examples: Zinc (Zn), Copper (Cu), Cadmium (Cd), lead (Pb), Nickel (Ni).

Our Data would indicate adding mercury (Hg) is warranted due to its widespread presence in the environment and some effluents. We have therefore included a twice annual screen for the following metals: Zn, Cu, Cd, Pb, Ni & Hg.

2.3b Assessment of substances liable to pollute

The WFD requires Member States to prior regulate, all substances in a discharge which are “liable to cause pollution”. Previously discharges from the Paper and Pulp Industry were controlled on a “liable to contain” approach set by the Dangerous Substances Directive through either numeric limits, or descriptive conditions. Under the “liable to cause pollution” approach numeric emission limits are only applied to those pollutants calculated to have the potential to cause pollution.

We have used this permit review to regulate discharges to surface waters from this installation using the “liable to cause pollution” approach, details of which is set out in our Horizontal Guidance Note H1 Annexe D1.

The H1 methodology uses a number of sequential steps to determine if a substance warrants detailed modelling and hence any emission limits being required, namely

- Screen out insignificant emissions that do not warrant further investigation;
- Determine if significant load test is failed;
- Decide if detailed water modelling is needed;
- Assess emissions against relevant standards and set limits where required.

As the operations have been substantially changed from those previously permitted we have concluded the data we hold may not be representative of the emissions from the installation. We have therefore set an IC to undertake further data collection and undertake the H1 screening at a later stage. Emission Limit Values will be amended at this point.

3 The legal framework

The Consolidated Variation Notice will be issued, under Regulations 18 and 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

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

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

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

Annex 1: decision checklist regarding relevant BAT Conclusions

BAT Conclusions for the production of pulp, paper and board, were published by the European Commission on 30 September 2014. There are 53 BAT Conclusions. This annex provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the Consolidated Variation Notice.

The overall status of compliance with the BAT conclusion is indicated in the table as:

NA	Not Applicable
CC	Currently Compliant
FC	Compliant in the future (within 4 years of publication of BAT conclusions)
NC	Not Compliant

Table 2. Decision checklist for relevant BAT Conclusions		
Summary of BAT Conclusion requirement for production of pulp, paper and board	Status NA/CC / FC/NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
BAT Conclusions that are not applicable to this installation	NA	Pulp & Paper Production BAT Conclusions; BAT conclusions for Kraft Pulping 19 - 32 inclusive; BAT conclusions for Sulphite Pulping 33 -39 inclusive; BAT conclusions for Mechanical / Chemical Pulping 40 and 41; BAT Conclusions 3, 4, 9, 11, 48, 49, 50, 5
BAT Conclusions where we accept the operator's Reg 60 notice response that they are currently compliant and no further explanation is required.	CC	Pulp & Paper Production BAT Conclusions: General BAT Conclusions for the Pulp and Paper Industry 2, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 17, 18 BAT Conclusions Processing Paper for Recycling 42, 44, 46, 47, BAT Conclusions for Papermaking and Related Processes 52
BAT Conclusions where improvements will be undertaken on site within the 4 year period in order to achieve compliance with the narrative and/or BATAEL prior to the 4 year deadline	FC	Pulp & Paper Production BAT Conclusions; 1, 43, 45, 53
BAT Conclusions where the Operator has responded that they are not compliant and have not submitted any plans to become compliant	NC	Pulp & Paper Production BAT Conclusions;

Key Issues

BAT Conclusions for the production of Pulp and Paper.

BATC 45 and table 18 (waste water loads from RCF mills without de-inking facilities) applies and therefore we have set the BAT AEL's as annual emission limits within table S3.3.

In this case we expect the annual emissions to be well within the applicable range as the installation has been substantially rebuilt. However the mill do not yet have data from a fully commissioned installation to confirm they are currently compliant. We have set an improvement condition to address this matter.

BAT 45 Table 18

Substance	BAT AEL's for Installation (kg/t)	BREF Source	Performance at time of Permit Review (kg/t)	Based on data from:
Chemical Oxygen Demand	0.4 – 1.4	BAT 45 table 18	0.686	2012 (PM7 & 8 Were operating at this time)
Total Suspended Solids	0.02 – 0.2		0.112	
Total Nitrogen	0.008 – 0.09		0.001	
Total Phosphorus	0.001 – 0.005		0.001	
AOX	0.05		n/a	
Biochemical Oxygen Demand				

BATC 5 also sets what is termed a BAT AEPL (BAT Associated Environmental Performance Level) for the amount of waste water the site should generate per tonne of paper produced.

In this case we expect the waste water flows to be at or near the bottom of the applicable range as the installation has been substantially rebuilt. However the mill do not yet have data from a fully commissioned installation to confirm they are currently compliant.

BAT Associated Waste Water Flow (m ³ /Adt)		Performance at time of Permit Review (m ³ /Adt)
RCF paper mill without deinking	1.5 – 10	Design Specification is 2.8 – 3.3m ³ when fully commissioned

Where relevant and appropriate, we have incorporated the techniques described by the Operator in their Regulation 60 Notice response as specific operating techniques required by the permit, through their inclusion in Table S1.2 of the Consolidated Variation Notice.

Annex 2a: Assessment, determination and decision where an application(s) for Derogation from BAT Conclusions with associated emission levels (AEL) has been requested.

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

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

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

(b) the technical characteristics of the installation concerned.

The competent authority shall document in an annex to the permit conditions the reasons for the application of the first subparagraph including the result of the assessment and the justification for the conditions imposed. '

The Operator did not request derogation from compliance with any BAT AEL included within the BAT Conclusions as part of their Regulation 60 Notice response.

Annex 2b: Advertising and Consultation on the draft decision

This section is not applicable as no derogations from BAT AEL's have been considered.

Annex 3: Improvement Conditions

Based on the information in the Operator's Regulation 60 Notice response and our own records of the capability and performance of the installation at this site, we consider that we need to set improvement conditions so that the outcome of the techniques detailed in the BAT Conclusions are achieved by the installation. These improvement conditions are set out below - justifications for them is provided at the relevant section of the decision document (Annex 1 or Annex 2).

We also consider that we need to set improvement conditions relating to changes in the permit not arising from the review of compliance with BAT conclusions. The justifications for these are provided in Annex 5 of this decision document.

If the consolidated permit contains existing improvement conditions that are not yet complete or the opportunity has been taken to delete completed improvement conditions then the numbering in the table below will not be consecutive as these are only the improvement conditions arising from this permit variation.

Table 4. Record of improvement conditions set through this variation		
Reference	Improvement Condition	Completion date
IC8	The operator shall assess annual emissions from emission point W1 for two consecutive 12 month periods, against the annual limits specified in Table S3.3 of this permit and submit the comparison to the Environment Agency. For each 12 month period, where annual emissions exceed the annual limits specified, the operator shall submit proposals to meet the limits by 01 October 2018.	28/02/2017 31/01/2018
IC9	The Operator shall investigate and submit for approval a report that reviews emissions of Dangerous Substances specified in Table S3.2 of this permit (i.e. Mercury, Cadmium, Pentachlorophenol, Tin) from the on-site effluent treatment plant to the receiving water body. The investigation shall encompass the following: <ul style="list-style-type: none">- Shall follow a minimum of 12 months intensive sampling at	01/06/2018

	<p>a sampling frequency of at least monthly, from the newly agreed monitoring location.</p> <ul style="list-style-type: none"> - The Limits of Detection or Minimum Reporting Value shall be agreed with the Environment Agency prior to commencement. - Shall review upstream water quality, potential sources via raw material inputs and process chemistry. - The output from the sampling programme shall be input into the Environment Agency H1 software screening tool in accordance with its methodology. The output of that screening exercise shall be submitted to the Environment Agency for further assessment. 	
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Annex 4: Review and assessment of changes that are not part of the BAT Conclusions derived permit review.

Fire Prevention

Having reviewed the Operators response to the Regulation 60 Notice it is clear that appreciable quantities of combustible waste materials are stored on site prior to re-pulping and therefore we have included the standard conditions contained in our current generic permit template, requiring the Operator to produce a Fire Prevention Plan on request.

Waste Acceptance

We have added Table S2.3 to regularise the acceptance of activated sludge from other Paper Mills to re-seed the Anaerobic Plant when necessary.

Annex 5: Priority Compliance Issues & Detailed assessment of Reg 60 responses where future action likely

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Environment Management System: BAT 1	1.1.1	CC	FC	<p>Regulation 60 response refers to Application EPR-BJ7433IQ/V004 which states ISO 14001 management system in place.</p> <p>ISO 14001 Insufficient evidence that each techniques is successfully used.</p> <p>Recommend on basis of recent compliance history that focused attention on implementation.</p>	<p>Validate compliance by Inspection</p> <p>Compliance Activity to focus on effectiveness of EMS especially as they move to the revised standard?</p>
Raw materials: BAT 2	1.3.1	CC	CC	Regulation 60 response refers to Application EPR-BJ7433IQ/V004 which has narrative on protection measures but not much	Validate compliance via inspection. Review whether each technique is applied

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/ NC/NA	Compliance assessment conclusion CC/FC/ NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
				evidence. We have accepted the response as compliant, although further assessment should be made	
Raw materials: BAT 3	1.3.1	NA	NA	Regulation 60 response refers to Application EPR- BJ7433IQ/V004 which states chelating agents not used.	None
Raw materials handling: BAT 4	1.12 & 3.1	NA	NA	Regulation 60 response confirmed no wood pulping occurs	None

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/ NC/NA	Compliance assessment conclusion CC/FC/ NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Water usage: BAT 5	1.3.1	CC	CC	<p>Regulation 60 response refers to Application EPR-BJ7433IQ/V004 which states the site operate a DAF and recover treated effluent back to the process</p> <p>Application identifies design envelope at lower range of BAT AEPL</p> <p>Evidence loosely provided to evidence techniques a, b, c and f are in place</p>	<p>Validate compliance via Inspection.</p> <p>Consider audit once PM9 Start up curve has stabilised and dependant on early waste water flow data.</p>

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/ NC/NA	Compliance assessment conclusion CC/FC/ NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Energy consumption: BAT 6	1.2.1	CC	CC	<p>Regulation 60 response refers to Application EPR-BJ7433IQ/V004</p> <p>States an energy management system is in place, and that techniques c, e, f, g, h, i and j are used at the installation</p> <p>Sufficient techniques applied to achieve compliance with BAT</p>	<p>Validate Compliance Via Inspection</p> <p>Focus on adoption of formal energy management system and heat recovery processes post 2018</p>
Odour control: BAT 7	3.3.1	CC	CC	<p>Water systems are considered designed to minimised production of odours.</p> <p>Whilst there are recent issues with odour at the Effluent Plant, none of the techniques under BATc 7 address that specific issue.</p>	Validate Compliance via inspection

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Monitoring process: BAT 8	3.5.1	CC	CC	Regulation 60 response refers to Application EPR-BJ7433IQ/V004 which references most techniques used apart for P, N and microscopy. These are set as specific process controls.	Requirements are set as per Environmental Permit and should be audited against in future?
Monitoring air: BAT 9	3.5.1	NA	NA	Regulation 60 response confirms no chemical pulping occurs	None
Monitoring water: BAT 10	3.5.1	CC	CC	Evidence provided that relevant monitoring is undertaken as specified in BATC 10	Validate Compliance via Inspection
Odour control: BAT 11	3.3.1	NA	NA	Regulation 60 response confirms no pulping occurs	None
Waste management: BAT 12	1.4.1	CC	CC	PM 9 Installation designed to separate process rejects to allow application of waste hierarchy. There are existing	Validate compliance via inspection Submission of IC4

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
				ICs to progress waste recovery as the plant optimises	
Emissions to water: BAT 13	1.3.1	CC	CC	Regulation 60 response states high nutrient chemicals not used	Validate compliance via inspection
Emissions to water: BAT 14	1.3.1 & 2.3.1	CC	CC	Installation operates Anaerobic Digestion and Activated Sludge Effluent Treatment Processes	None
Emissions to water: BAT 15	2.3.1	NA	NA	Application EPR-BJ7433IQ/V004 confirms tertiary treatment not necessary	None
Emissions to water: BAT 16	2.3.1	CC	CC	Concentrations of organic substances, Phosphorous and Nitrogen within BAT AEL's. No local indicators further removal is needed.	Validate Compliance via Inspection

Noise control: BAT 17	3.4.1	CC	CC	<p>The response to the Regulation 60 Notice referenced Application EPR-BJ7433IQ/V004, which includes evidence that a combination of techniques are use</p> <p>Steam and exhaust vents fitted with silencers (n)</p> <p>PM9 Machine house constructed with acoustic panelling and cladding (f)</p> <p>Consideration to location of plant (b) e.g. Wet End MCC Annexe</p> <p>Noisy Equipment located in buildings e.g. Turbair vacuum pump in own acoustic room in PM9 machine house</p> <p>Noise survey previously conducted and related to noise reduction plan (a)</p> <p>Monthly vibration analysis (c)</p>	Validate compliance via inspection where noise complaints trigger action
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Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Decommissioning: BAT 18	3.1.6	CC	CC	The response refers to application EPR-BJ7433IQ/V004 which states the operator maintains a site closure plan which is updated for PM9 to incorporate the techniques listed in BATc 18. The location of new underground pipework is recorded	Validate compliance via inspection
Recycled Fibre raw materials: BAT 42	1.3.1	CC	CC	The response refers to application EPR-BJ7433IQ/V004 which states that techniques a – e are all used at the installation	Validate Compliance via Inspection
Recycled Fibre water emissions: BAT 43	1.3.1	CC	FC	Equipment in place to allow compliance with techniques a, b, c and d	Validate compliance via inspection following PM9 Start Up curve stabilising

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/ NC/NA	Compliance assessment conclusion CC/FC/ NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
				Extent of use of techniques needs validating after production on PM9 has stabilised.	
Recycled Fibre water management: BAT 44	1.3.1	CC	CC	The Regulation 60 response refers to application EPR- BJ7433IQ/V004 States that process waters monitored, biofilm controlled and calcium precipitated from water. Techniques a, b and c are used.	Validate compliance via inspection. Confirm use of technique (c).

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Recycled Fibre water AEL's: BAT 45	1.3.1 & 3.5.1	CC	FC	<p>At submission of the Regulation Notice PM9 was not producing paper. The installation is still optimising so no data on compliance with BAT AEL's is available.</p> <p>Data submitted with Application EPR-BJ7433IQ/V004 Variation Addendum indicates that prior to PM9 build the installation was compliant with BAT AEL's.</p> <p>We have set IC 8 to help establish a benchmark against BAT AELs and develop an action plan where they are not achieved</p>	IC 8

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Recycled Fibre energy: BAT 46	1.2.1	CC	CC	<p>The Regulation 60 response refers to application EPR-BJ7433IQ/V004</p> <p>New coarse screening line is single pump operation with no dump chest, intermediate chests or further pumps between cleaning stages</p> <p>Whilst the existing pulper was retained during the rebuild, new motors and pumps were installed.</p> <p>Heavy rejects are taken out as early as possible in the process.</p> <p>Techniques a, b and c are evidenced</p>	Validate compliance via inspection

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Paper making waste water: BAT 47	1.3.1	CC	CC	The Regulation 60 response refers to application EPR-BJ7433IQ/V004 which evidences that techniques a, b and c are used. The Installation has a DAF plant and stock approach and cleaning is a single pumped system eliminating intermediate chests.	Validate compliance via inspection
Paper making water usage: BAT 48	1.3.1	NA	NA	Applicable only to Speciality Mills	None
Paper making water management: BAT 49	1.3.1	NA	NA	Colour Coating not used	None
Paper making water emissions: BAT 50	1.3.1 & 3.5.1	NA	NA	Covered under BAT 45	None
Paper making Volatile Organic Compounds: BAT 51	3.2.1	NA	NA	Regulation 60 response detailed no on-line coating	None

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Paper making waste generation: BAT 52	1.4.1	CC	CC	The Regulation 60 response refers to application EPR-BJ7433IQ/V004 which identified techniques (a), (b) and (d) can be used at the Installation. Technique (d) will be dependent on effluent plant functioning within design parameters	Validate compliance via Inspection Review uptake of technique (d) in line with proposals in the application
Paper making energy consumption: BAT 53	1.2.1	CC	FC	The Regulation 60 response refers to application EPR-BJ7433IQ/V004 which identifies a range of techniques are used and further identifies proposed improvements by 2018 following the installation of a new CHP plant dedicated to PM9 Air Vacuum System not water ring pumps (k)	Track future compliance via IC 2 & 3

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/ NC/NA	Compliance assessment conclusion CC/FC/ NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
				<p>Thermo compressors on Steam system Tri-nip press section (c)</p> <p>Steam box (j) not installed due to impact on paper breaks and run ability Class 2 motors (n) or better installed</p> <p>Shower water pre-heated (o)</p> <p>Electrical distribution harmonised and optimised across installation (l)</p> <p>Variable Speed Drives (h) cover 90% of motor power output</p> <p>Flash steam is still used to heat process waters due to availability of steam from</p>	

Compliance Issue Priority BAT indicated in Bold Text	Relevant Permit Condition	Compliance stated by Operator CC/FC/NC/NA	Compliance assessment conclusion CC/FC/NC/NA	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
				current CHP configurations. Heat recovery systems are to be installed in association with completion of new CHP plant to serve PM9 which should be complete by September 2018	
Response to Question 4 of Reg 60: ability of site report to be considered as a site condition report under IED	3.1.6	CC	CC	Response indicated that current site report has been kept up to date and will be reviewed and amended in order to comply with IED	Validate compliance by Inspection to ensure Operator amends site report where necessary, including the requirement for periodic monitoring where justified.
Note permit condition 2.3.1 will require Operate to operate as per Regulation 60 response documents referenced in Table S1.2.					