

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/PP3539TJ
The Operator is: Northwood Tissue (Disley) Limited
The Installation is: Disley Paper Mill
This Variation Notice number is: EPR/PP3539TJ/V006

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 Regulation 60 Notice response from the Operator was received on 31 March 2015.

We considered that the response did not contain sufficient information for us to commence determination of the permit review. We therefore issued a further information request to the Operator. Suitable further information was provided by the Operator on 3 October 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 Conclusions 1, 2, 5, 6, 16 and 45. In relation to these BAT Conclusions, we have generally accepted the operators proposed improvements should achieve compliance.

We have therefore included Improvement Conditions 1 and 2 in the Consolidated Variation Notice to ensure that the requirements of the BAT Conclusion are delivered before 30 September 2018. See Annex 1 for details

We have identified where further proposed techniques to deliver BAT Conclusions (1, 2, 5, 6 and 16) before 30 September 2018 which should be more fully assessed. See Annex 5 for details.

The Operators response to the Regulation 60 Notice did not fully cover how the construction and operation of PM2 and new combustion plant permitted under Variation EPR/PP3539TJ/V003 compares to the Bat Conclusions specified in the revised Paper and Pulp BREF. We have therefore set a pre-operational condition for the operator to compare the PM2 proposals against the BREF.

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.

Monitoring data has been subjected to checks and review prior to running through the screening process. Here we deal with such issues as results that are consistently at or below the limit of detection (LOD), waters abstracted and returned to the same environment and applying standard percentages of Environmental Quality Standard (EQS) if no upstream/ background water quality data is available. See H1 Annex D1 for the detailed procedures.

A summary of the assessment for liable to pollute for substances regulated at this installation is provided in Table 2 below. Assessments are based on the last three years of data submitted under the existing Environmental Permit.

Table 2. Outcome of hazardous substances review process

Substance	Control of Substance under Previous Regime	Data Review	Screening Stage Screening for Insignificance / Significant Load	Setting Emission Limit	Control under (WFD)
Mercury	1.0ug/l	Results below LOD	n/a	n/a	Remove limit from Permit
Cadmium	1.0ug/l	Substance detected with positive values above LOD, Progress to Screening	Substance Screen out as Insignificant and not likely to cause pollution	n/a	Remove limit and/or monitoring from permit
Pentachlorophenol (PCP)	1.5ug/l				
Hexachlorocyclohexane (HCH) All Isomers	0.1ug/l				

For Discharges to Sewer we have removed monitoring requirements for dangerous substances, other than those specified in the twice annual screen detailed in Section 2.4a.

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 3. 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, 51
	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 7, 8, 10, 12, 13, 14, 15, 17, 18 BAT Conclusions Processing Paper for Recycling 42, 43, 44, 46, 47 BAT Conclusions for Papermaking and Related Processes 52, 53
	BAT Conclusions where improvements will be undertaken on site within the 4	FC	Pulp & Paper Production 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
	year period in order to achieve compliance with the narrative and/or BATAEL prior to the 4 year deadline		1, 2, 5, 6, 16, 45
	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; None

Key Issues

BAT Conclusions for the production of Pulp and Paper.

BATC 45 and table 19 (waste water loads from RCF mills with de-inking facilities) applies and therefore we have set the BAT AEL's as annual emission limits within table S3.3.

In this case the Operator has been shown to be operating above the applicable range for the annual emission loads and we have therefore set an improvement condition to address this (see Annex 3 for details).

BAT 45 Table 19

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	0.9 – 4.0	BAT 45 table 19	2.1 – 2.7	2012 - 2014
Total Suspended Solids	0.1 – 0.4		0.21 – 0.48	
Total Nitrogen	0.01 – 0.15		0.018 – 0.048	
Total Phosphorus	0.002 – 0.015		0.18 – 0.28	
AOX	0.05			
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 the Operator has been shown to be operating above of the applicable range for waste water flow and we have therefore set an improvement condition to address water usage (see Annex 3 for details).

BAT Associated Waste Water Flow (m3/Adt)	Performance at time of Permit Review (m3/Adt)
RCF based tissue paper mill with deinking	10 – 25 27.4

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 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 5).

We have also retained improvement conditions (IC3 to IC5) relating to proposed changes to the installation permitted under EPR/PP3539TJ/V003. IC 1 and IC2 of permit EPR/PP/3539TJ are complete.

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

Reference	Improvement Condition	Completion date
IC1	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the BAT conclusion AELs where BAT is currently not achieved, but will be achieved before 30 September 2018. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> 1. Current performance against the BATc AEL. 2. Methodology for reaching the AELs. 3. Associated targets / timelines for reaching compliance by 30 September 2018 4. Any alterations to the initial plan <p>The report shall address BATc 45.</p> <p>The operator shall submit reports on progress with the approved compliance plan on a six monthly frequency specified by this condition</p>	<p>Initial Report 01/09/16</p> <p>Progress reports by 01/03/17 01/09/17 01/03/18 01/09/18</p>

<p>IC2</p>	<p>The operator shall submit, for approval by the Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 30 September 2018. The report shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> 1. Methodology for achieving BAT. 2. Associated targets / timelines for reaching compliance by 30 September 2018 3. Any alterations to the initial plan – <p>The report shall address the following BATc: 1, 2, 5, 6, 16(c)</p> <p>The operator shall submit reports on progress with the approved compliance plan on a six monthly frequency specified by this condition</p>	<p>Initial Report 01/09/16</p> <p>Progress reports by 01/03/17 01/09/17 01/03/18 01/09/18</p>
<p>IC3</p>	<p>Following successful commissioning of PM2 and associated plant together with the co-generation plant and 15 MW boiler and establishment of routine steady operation, the Operator shall undertake noise monitoring at the nearest local receptors. This shall include:</p> <ul style="list-style-type: none"> - An assessment meeting the BS4142:1997 standard - 1/3rd octave and narrow band (FFT) measurements to identify any tonal elements or low frequency noise - Reference to the World Health Organisation guidelines for community noise. <p>Upon completion of the work, a written report shall be submitted to the Environment Agency. The report shall make reference to the predictions in the acoustics report in appendix D of the variation application. If noise at levels likely to cause complaints at sensitive receptors is detected, the report shall include an assessment of the most suitable abatement techniques and an</p>	<p>Within 4 months of the completion of commissioning</p>

	estimate of the cost and a proposed timetable for their installation.	
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<p>IC4</p>	<p>The operator shall submit a written post-commissioning report for the new combustion plant and PM2 to the Environment Agency. The report shall include as a minimum:</p> <ul style="list-style-type: none"> <input type="checkbox"/> a review of performance of the new combustion plant, PM2 and effluent treatment plant under a representative range of operating conditions <input type="checkbox"/> Details of procedures developed during commissioning for achieving and demonstrating satisfactory process control. <p>The report should clearly demonstrate how the commissioning plan has been implemented during the commissioning period. Where differences are identified between the new combustion plant, PM2 and effluent treatment plant and that presented within the EPR variation application the Operator shall:</p> <ul style="list-style-type: none"> <input type="checkbox"/> review the environmental impact assessment submitted as part of the application where appropriate, and <input type="checkbox"/> propose a time-tabled plan for upgrades to optimise plant performance. <p>Any control procedures or upgrades shall be implemented in accordance with the Environment Agency's written approval.</p>	<p>Within 4 months of the completion of commissioning</p>
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IC5	<p>The operator shall carry out an assessment of the thermal impact of the discharge from emission point W1 on the aquatic environment of the River Goyt, using an appropriate model as agreed with the Environment Agency. The assessment shall consider but not be limited to:</p> <ul style="list-style-type: none"> - Continuous temperature monitoring of the final effluent discharged to the River Goyt to provide a year round temperature profile; - The impact of the discharge on river temperature; - The predicted mixing zone; and - An assessment against the temperature standards set out in H1 Annex D, specifically 28°C for a “good” status cyprinid river and no increase of more than 3°C above the ambient river temperature. <p>A written report on the findings of the assessment shall be submitted to the Environment Agency for approval.</p>	Within 12 months of the issue of variation EPR/PP3539TJ/V006
IC 6	<p>The Operator shall submit to the Environment Agency for approval, a report detailing the process monitoring required under Table S3.3 / S3.4 of this permit, for particulate emissions from air emission points, from non-combustion sources listed in table S3.1 of this permit. The submission shall make reference to techniques used to minimise and manage the release of particulate matter including; the source of particulate matter; available abatement/control measures; monitoring techniques/methods and inspection frequencies.</p>	12 months from date of issue of variation EPR/PP3539TJ/V006.
IC7	<p>The operator shall submit for agreement with the Environment Agency details of use of Sodium Hypochlorite at the Effluent Treatment Plant. The review shall include parameters when chemical addition may occur and cease and quantities historically used.</p>	Within 6 months of issue of variation EPR/PP3539TJ/V006

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.

Review of Site Report

We have reviewed the Operators response to the Reg 60 Notice regarding the adequacy of their existing site report in fulfilling the requirements of a Site Condition Report for the purposes of IED. We have concluded that the existing report has been created and maintained by the Operator to a satisfactory standard and providing the Operator complies with the additional requirement for periodic monitoring, as contained within condition 3.1.4 it will comply with the revised requirements under IED

Raw Materials

We have removed the specification on incoming pulp to be chlorine free.

Effluent treatment plant

We have set an improvement condition requiring the use of Sodium Hypochlorite at the effluent plant to be justified as we believe this technique is no longer appropriate in the management of activated sludge effluent treatment plants.

Management of particulate emissions from tissue mills

Previously not all emission points to air from the paper making activities may have been accurately recorded and referenced by the Operator and hence the permit. We have reviewed the data held on emission points to air from various dust extraction/emission points on site (also) appears to be inaccurate and out of date with current operations on site.

We have therefore set an improvement condition requiring the Operator to submit for approval a report that details both the emission points and how the process monitoring as required by Table3.4 will be conducted. The report will also detail monitoring/abatement technologies employed and inspection frequencies proposed.

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	FC	FC	<p>The Operator manages an EMS aligned to the 14001 standard but which is not externally certified by an accredited body.</p> <p>There was insufficient evidence submitted to suggest an effective Environment Management System supports compliance and environmental protection at the installation. Insufficient evidence that all BATc techniques are present in the management system was provided.</p>	<p>Validate compliance by Inspection</p> <p>Further self disclosure of adequate EMS is considered insufficient without verification that EMS functions appropriately and meets all BATc techniques.</p> <p>We have set IC2 to track progress of external assessment of suitability of EMS in conjunction with robust auditing of EMS.</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
Raw materials: BAT 2	1.3.1	FC	FC	Evidence of technique used provided, however lack of evidence of spill response procedure suggests management system failure	<p>Validate compliance by Inspection</p> <p>Recommend assessing compliance with BATc2 as evidence of compliance with BATc1 i.e. test BATc 2 processes are evident in management system techniques</p> <p>We have Set IC2 to allow a gap analysis to be undertaken against BATc to support compliance validation</p>
Raw materials: BAT 3	1.3.1	NA	NA	Regulation 60 response taken as confirmation that Hydrogen Peroxide is not used	None
Raw materials handling: BAT 4	1.1.1	NA	NA	Regulation 60 response taken of confirmation that 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	FC	FC	<p>Evidence provided of water loops and use of techniques detailed in BATc however further infrastructure and management has the potential to reduce water consumption further</p> <p>Water consumption is outside of the BAT AEL range and therefore indicates BATc 5 isn't currently compliant</p> <p>IC set to drive improvement in water use.</p>	We have set an IC 2 that requires further detailed plans to be submitted to the site Officer to show how the Operator intends to reduce water usage per tonne of paper so as to be within the BAT AEPL range. This is a key issue as it affects their ability to comply with the BAT AEL's applicable to the site. We have set the IC to require 6 monthly updates
Energy consumption: BAT 6	1.2.1	FC	FC	<p>Evidence provided suggests monitoring of energy use and certain techniques are used.</p> <p>Indication that current practice likely to be short of current industry practice and</p>	We have set IC2 to review energy consumption at the installation in more detail

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
				opportunities for energy efficiency are highly likely. Lack of Evidence of formal energy management system	
Odour control: BAT 7	3.3.1	CC	CC	Sufficient evidence submitted in the RFI response to indicate BATc is complied with	Validate compliance by Inspection
Monitoring process: BAT 8	3.5.1	CC	CC	Evidence provided that relevant process monitoring is undertaken as specified in BATC 8	Validate compliance by Inspection
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 by Inspection
Odour control: BAT 11	3.3.1	NA	NA	Regulation 60 response confirms no pulping occurs	None

Compliance Issue	Relevant Permit Condition	Compliance stated by Operator	Compliance assessment conclusion	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Priority BAT indicated in Bold Text		CC/FC/NC/NA	CC/FC/NC/NA		
Waste management: BAT 12	1.4.1	CC	CC	Evidence provided that waste is segregated for application of Waste Hierarchy	Validate compliance by Inspection Recommend waste minimisation audit focusing on pulping reject segregation and review of values obtainable for rejects waste stream
Emissions to water: BAT 13	1.3.1	CC	CC	Regulation 60 response states high nutrient chemicals not used	Validate compliance by Inspection Review whether composite nutrient addition is suitable give excess levels of P.
Emissions to water: BAT 14	1.3.1 & 2.3.1	CC	CC	Description of Effluent Plant Provided	Effluent Plant comprises Primary and Secondary Clarifiers and Activated Sludge Plant
Emissions to water: BAT 15	2.3.1	NA	CC	BATc 45 suggests investigating Ferric Dosing to remove excess P, however primary measures for reducing P have not been exhausted. Accepting as compliant unless primary measures do not reduce P	Validate compliance Via Inspection Review of nutrient dosing loops etc as detailed in BAT 45 Review conclusions if progress to achieving BAT AEL`'s is not achieving results.

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
Emissions to water: BAT 16	2.3.1	CC	FC	<p>Suitable description of ETP provided.</p> <p>Evidence provided that nutrient dosing maybe incorrect to needs of ETP biomass</p> <p>Demonstration of compliance with BATc 16 (c) should be assessed further</p>	We have set IC2 to review dosing regime of ETP
Noise control: BAT 17	3.4.1	CC	CC	<p>Range of Techniques identified as part of RFI response, sufficient to accept compliance with BATc.</p> <p>IC to undertake revised noise assessment associated with PM2 remain in permit</p>	Validate compliance by Inspection
Decommissioning: BAT 18	3.1.4	CC	CC	Evidence provided suggests Segregation of Surface Water from pulp storage yard already	Validate compliance by Inspection

Compliance Issue	Relevant Permit Condition	Compliance stated by Operator	Compliance assessment conclusion	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Priority BAT indicated in Bold Text		CC/FC/NC/NA	CC/FC/NC/NA		
				addressed through regulation in 2010	
Recycled Fibre raw materials: BAT 42	1.3.1	CC	CC	Regulation 60 response contained a number of techniques to manage housekeeping of RCF	Validate compliance by Inspection FPP Condition added to pursue fire protection measures for RCF material as needed
Recycled Fibre water emissions: BAT 43	1.3.1	CC	CC	Evidence of Techniques used detailed in Regulation 60 Response White water circuits and counter current in place. Water use BAT AEPL are outside of benchmark. Whilst we are accepting the operator is complaint with this BATc further assessment of these processes is recommended through compliance activity.	Validate compliance by Inspection Recommend Water Audit planned to confirm BAT applied on water use.

Compliance Issue	Relevant Permit Condition	Compliance stated by Operator	Compliance assessment conclusion	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Priority BAT indicated in Bold Text		CC/FC/NC/NA	CC/FC/NC/NA		
Recycled Fibre water management: BAT 44	1.3.1	CC	CC	<p>Evidence of Techniques used detailed in Regulation 60 Response</p> <p>Limited application as water circuits not that closed up</p>	Validate compliance by Inspection
Recycled Fibre water AEL's: BAT 45	1.3.1 & 3.5.1	FC	FC	<p>BAT AEL's not currently achieved for TSS and Total P, although data highly variable and notably worse in 2014 than 2012.</p> <p>Operator has proposed review of dosing, but also proposed potential for Ferric Dosing which should be avoided</p> <p>Limited suggestions for progressing solids reduction</p>	<p>We have set IC 1 to progress improvements to achieve BAT AEL's</p> <p>Assessments should include; Nutrient dosing feedback loop sample location Confirmation that Total P is being assessed and not Orthophosphate (O-PO4 identified on sample data spreadsheets)</p> <p>Review of use of composite dosing chemicals as opposed to separate nutrient addition (See BATc 13) Review Dosing Point (BATc16c) Review Dosing Feedback Loop (BATc15)</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
					Fibre filler recovery justification (BATc 52) doesn't increase fibre loss Optimisation of pulp refiners to minimise fibre loss.
Recycled Fibre energy: BAT 46	1.2.1	CC	CC	Applicable during major refurbishment of De-ink / RCF Stock Prep plant	Review id De-ink plant / RCF Stock prep Refurbished.
Paper making waste water: BAT 47	1.3.1	CC	CC	Techniques used identified in RFI Response along with justification for not re-using recovered fibre filler.	Validate compliance by Inspection
Paper making water usage: BAT 48	1.3.1	NA	NA	Applicable only to Speciality Mills Process is not a speciality Mill	None
Paper making water management: BAT 49	1.3.1	NA	NA	Covered by BAT 5	None
Paper making water emissions: BAT 50	1.3.1 & 3.5.1	NA	NA	Covered by BAT 45	None

Compliance Issue	Relevant Permit Condition	Compliance stated by Operator	Compliance assessment conclusion	Summary of Permitting Officer Assessment against BATc techniques	Compliance Action to Implement BAT Conclusions
Priority BAT indicated in Bold Text		CC/FC/NC/NA	CC/FC/NC/NA		
Paper making Volatile Organic Compounds: BAT 51	3.2.1	NA	NA	Regulation 60 response detailed no on-line coating	None
Paper making waste generation: BAT 52	1.4.1	CC	CC	Techniques used identified in RFI Response along with justification for not re-using recovered fibre filler.	Validate compliance by Inspection Review opportunity to separate primary fibre recovery from de-inked sludge during major refurbishment
Paper making energy consumption: BAT 53	1.2.1	CC	CC	Evidence of a number of techniques specified by BATc identified in the RFI response.	Validate compliance by Inspection
Response to Question 4 of Reg 60: ability of site report to be considered as a site condition report under IED	3.1.4	CC	CC	Response indicated that current site report has been maintained and can be reviewed to meet the purpose of the 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.					