

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/FP3338FV
The Operator is: Union Papertech Limited
The Installation is: Heywood Paper Mill
This Variation Notice number is: EPR/FP3338FV/V003

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.

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 30 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 have no reason to consider that the operator will not be able to comply with the techniques and standards described in the BAT Conclusions.

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		All data below LOD (<0.01ug/l)	n/a	n/a	Remove from Permit
Cadmium		All Data below LOD (<0.1ug/l)	n/a	n/a	Remove from permit
PCP		All Data below LOD (<0.02ug/k)		n/a	Remove from Permit

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 for Processing Paper for Recycling 42 - 46; BAT Conclusions 3, 4, 9, 11, 15, 49, 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 1, 2, 5 to 8, 10, 12 to 18 BAT Conclusions for Papermaking and Related Processes 47, 48, 50, 52, 53
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; None
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 50 table 21 (waste water loads from non-integrated speciality mills) applies and therefore we have set the BAT AEL's as annual emission limits within table S3.4 of the permit.

In this case we have accepted that the current annual emissions are well within the applicable range.

BAT 50 Table 21

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	0.3 - 5	BAT 50 table 21	3.49	Average 2 years data supplied in Regulation 60 response covering years 2012-14
Total Suspended Solids	0.10 - 1		0.45	
Total Nitrogen	0.015 – 0.4		0.169	
Total Phosphorus	0.002 – 0.04		0.017	
AOX	0.05		Unknown	
Biochemcial Oxygen Demand			7.6mg/l	

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

No improvement conditions set.

Annex 4: Review and assessment of changes that are not part of the BAT Conclusions derived permit review.

Activity “Section 5.4 Part A(1)(a)(ii)”, “Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving physio-chemical treatment” removed from permit as the activity has been included within the remaining listed Section 5 activity.

We have revised the hazardous pollutants monitoring to surface waters and removed the previous sanitary pollutants to sewer as these are not required.

We have removed a second listed activity for the physio- chemical effluent treatment plant within table S1.1 This is to ensure consistency across the sector.

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	CC	Evidence of application of relevant techniques provided in Regulation 60 response apart from external audit of EMS. Site not intending to obtain 14001, but comply to all of its principles.	Validate compliance by Inspection that internal auditors will be trained to ISO 14001 standard.
Raw materials: BAT 2	1.3.1	CC	CC	Evidence of application of a range of techniques provided in Regulation 60 response	
Raw materials: BAT 3	1.3.1	NA	NA	Regulation 60 response confirmed Hydrogen Peroxide is not used	
Raw materials handling: BAT 4	1.1.1	NA	NA	Regulation 60 response confirmed no wood pulping occurs	

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	As a speciality, low paper weight manufacturer BAT AEPL ranges are not applicable though the BATc descriptions are.	
Energy consumption: BAT 6	1.2.1	CC	CC	Evidence provided in the Regulation 60 response identifying application of (a range) of techniques associated with BATC 6. Evidence submitted of ongoing management and reduction of energy use.	No plan to get an accredited EMS.
Odour control: BAT 7	3.3.1	CC	CC		
Monitoring process: BAT 8	3.5.1	CC	CC	Evidence provided that relevant process monitoring is undertaken as specified in BATC 8.	
Monitoring air: BAT 9	3.5.1	NA	NA	Regulation 60 response confirms no chemical 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
Monitoring water: BAT 10	3.5.1	CC	CC	Evidence provided that relevant monitoring is undertaken as specified in BATC 10. Apart from AOX.	Ensure Operator adds AOX monitoring to schedule following permit issue.
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	Evidence provided that waste is segregated for application of Waste Hierarchy	
Emissions to water: BAT 13	1.3.1	CC	CC	Regulation 60 response states high nutrient chemicals not used	
Emissions to water: BAT 14	1.3.1 & 2.3.1	CC	CC	The effluent plant utilizes an equalising basin before secondary treatment involving clarification and aerobic biological treatment.	
Emissions to water: BAT 15	2.3.1	NA	NA	Receiving waters not eutrophic	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
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.	
Noise control: BAT 17	3.4.1	CC	CC		
Decommissioning: BAT 18	3.1.4	CC	CC		
Recycled Fibre raw materials: BAT 42	1.3.1	NA	NA		
Recycled Fibre water emissions: BAT 43	1.3.1	NA	NA		
Recycled Fibre water management: BAT 44	1.3.1	NA	NA		
Recycled Fibre water AEL's: BAT 45	1.3.1 & 3.5.1	NA	NA		
Recycled Fibre energy: BAT 46	1.2.1	NA	NA		
Paper making waste water:	1.3.1	CC	CC	White water re-use via save all devices and	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
BAT 47				ww returned to pulpers. Evidence of shower optimisation supplied	
Paper making water usage: BAT 48	1.3.1	CC	CC	Applicable only to Speciality Mills suitable range of techniques identified as in use.	None
Paper making water management: BAT 49	1.3.1	NA	NA		
Paper making water emissions: BAT 50	1.3.1 & 3.5.1	CC	CC	The Operator has indicated that they are fully compliant with the BAT AEL's for this site.	
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	Some techniques identified as in use, but scope limited due to product range.	None
Paper making energy consumption: BAT 53	1.2.1	CC	CC	Suitable range of applicable techniques in use. Piping 90% lagged, largest vac pumps switched to turbo fans, 70 to 75% of	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
				steam condensate is recovered. Motors; many have invertor drives fitted and replaced to latest standards when broken.	
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 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.					