Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Shotton Paper Mill

UPM-Kymmene UK Ltd
Weighbridge Road
Shotton
Deeside
Flintshire
CH5 2LL

Variation notice number
EPR/BT4885IT/V009

Permit number

EPR/BT4885IT

Shotton Paper Mill
Permit number EPR/BT4885IT

Introductory note

This introductory note does not form a part of the permit

The following notice, which is issued pursuant to regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2010 S.I.2010 No. 675 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility.

This variation permits a temporary and conditional increase in the effluent discharge limit to the Dee Estuary, via White Sands Gutter, to accommodate the relatively infrequent occasions when effluent held in the lagoon is heated, or its temperature is maintained, by high ambient temperatures such that the current discharge temperature limit may be exceeded.

The effluent discharge is currently subject to a temperature limit of 25^{0}C, and a discharge window of four hours which starts one hour before high-tide. Following a period of prolonged high ambient air temperature (an average temperature above 20^{O}C over a six hour period), which maintains or increases the temperature of effluent in both the lagoon and the receiving waters in the White Sands Gutter, the operator is permitted to discharge effluent at 28^{O}C.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions, Schedule 3 lists any conditions that have been added and Schedule 4 shows any changes to the plan.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status Log of the permit		
Detail	Date	Response Date
Application BT4885	Duly made 11/10/02	
Permit determined BT4885	07/02/03	
Application for variation	Received 31/07/03	
Duly made	31/07/03	
Response to request for information	19/09/03	23/09/03
Response to request for information	25/09/03	01/10/03
Response to request for information	25/09/03 & 06/10/03	15/10/03
Variation BV4916	Determined 05/11/03	
Application for variation	Received 29/04/05	
Variation JP3030LM	Issued 16/12/2005	
Application for variation	Received 12/07/06	
Response to request for information	Received 14/07/06	
Variation WP3031LR	Issued 17/07/06	
Application for variation	Received 28/11/05	
Response to request for information	25/04/06	26/05/06
Variation PP3936SQ	Issued 11/08/06	
Variation notice NP3739XM issued	Issued 17/12/07	
Application for variation	Received 29/12/09	
Response to request for information	06/01/10	01/03/10
Variation EA/EPR/BT4885IT/V006	Issued 12/05/10	
Application for Partial Surrender	Duly Made 24/02/10	
Partial Surrender Notice EPR/BT4885IT/S007 issued	19/05/10	
Application for variation	Duly Made 10/05/10	
Variation EA/EPR/BT4885IT/V008	Issued 01/11/10	
Application for variation	Duly Made	
Variation EA/EPR/BT4885IT/V009	Issued 17/12/10	

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2010

Permit number

EPR/BT4885IT

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No 675) varies the permit as set out below.

UPM-Kymmene UK LTD

whose registered office

Meadowhead Road
Shewalton
Irvine
Scotland
KA11 5AT

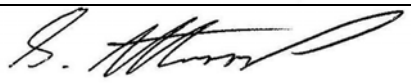
company registration number **SC 102969**

holds a permit to operate a regulated facility at

Shotton Paper Mill
Weighbridge Road
Shotton
Deeside
Flintshire
CH5 2LL

and that permit is varied to the extent set out in Schedules 1 to 4 of this notice.

The notice shall take effect from 17/12/10

Name	Date
	17/12/10

Authorised on behalf of the Environment Agency

Schedule 1– conditions to be deleted

None.

Schedule 2 – conditions to be amended

The following conditions are amended.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex IIA and IIB operations**	**Limits of specified activity and waste types**
A1	S6.1 A1 - Producing in an industrial plant paper and board where the plant has a production capacity of more than 20 tonnes per day.	Newsprint manufacture from recycled fibre, including raw material processing and despatch of finished goods to the customer.	Waste paper delivery to site. Despatch of paper to customer.
A2	Section 1.1 Part (A)1 - Burning any fuel in an appliance with a rated thermal input of 50 MW or more.	Three gas/oil fired boilers and one fluidised bed combustor .	Fuel delivery and storage, discharge stacks and steam distribution system
A3	Section 5.1 Part (A) 1 (c) - The incineration of non-hazardous waste in an incineration plant with a capacity of 1 tonne or more per hour	WID Incinerator	Incineration and steam generation, plus reciept, storage and preparation of waste materials – limited to the waste materials and quantities identified in table S2.2
	Directly Associated Activity		
A4	Effluent treatment plant.	Activated sludge treatment of all liquid effluent from the papermaking activity.	Effluent flow from paper machines, effluent treatment, lagoons and discharge system
	Description of activities for waste operations		**Limits of activities**
A5	Materials recycling facility (not subject to standard rules as >75kte).		From receipt of non-hazardous wastes and raw materials to transfer of separated wastes to further treatment and recovery activities; dispatch of residual wastes. Waste types to be as specified in Schedule 3 Table S2.3.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Management and control		
Application	The response to question 2.1 given in section 2.1 of the Application, excluding Table 2.1, and in Appendix 2	11/10/02
Response to Schedule 4 Part 1 Notice	Response to question 5	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 01/10/03	02/10/03
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Application for variation EA/EPR/BT4885IT/V006	Application for variation dated December 2009	29/12/09
Application for variation EA/EPR/BT4885IT/V008	Application for variation dated 10/05/10– Annex 1 (Fuels Testing Protocol), Annex 1 (Waste Acceptance Procedures) and Annex 2 (Accident Management Plan)	10/05/10
Raw materials (including water)		
Application	The response to question 2.2 given in section 2.2 of the Application excluding Tables 2.2.2.1 and 2.2.3.1	11/10/02
Response to Sch-4 Notice	Item 6, Item 7	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 15/10/03	15/10/03
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Application for variation EA/EPR/BT4885IT/V008	Application for variation dated 10/05/10	10/05/10
Groundwater protection		
Application	The response to question 2.4 given in the Application section 2.4 excluding Table 2.4.1	11/10/02
Response to Schedule 4 Part 1 Notice	Response to questions 1 and 2	11/10/02
Supplementary Information	Response to item 4	11/10/02
Waste handling and storage		
Application	The response to question 2.5 given in the Application section 2.5 excluding Table 2.5.4	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Waste recovery and disposal		
Application	The response to question 2.6 given in the Application section 2.6 excluding Table 2.6.1	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03

Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Application for variation EA/EPR/BT4885IT/V008	Application for variation, documents referenced in response to 6f. – the location of waste storage areas.	10/05/10
Energy Efficiency		
Response to Schedule 4 Part 1 Notice	Response to questions 16 and 22	11/10/02
Additional information provided by letter	Sankey diagram.	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Application for variation PP3936SQ	Application for variation dated 24/11/05 (table New energy mix, C2.7.1 shall be excluded)	28/11/05
Response to request for information	Response dated 26/05/06	26/05/06
Accident and prevention		
Response to Schedule 4 Part 1 Notice	Response to questions 8, and 18	11/10/02
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Noise and Vibration		
Application	The response to question 2.9 given in the Application section 2.9 excluding Table 2.9.1	11/10/02
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Monitoring		
Application	The response to question 2.10 given in the Application section 2.10 excluding Table 2.10.8.	11/10/02
Response to Schedule 4 Part 1 Notice	Response to question 14.	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 01/10/03	02/10/03
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Decommissioning		
Application	The response to question 2.11 given in the Application section 2.11.	11/10/02
Application for variation BV4916	Application for variation dated 25/07/03	31/07/03
Response to request for information	Response dated 01/10/03	02/10/03
Operating techniques		
Application	The response to question 2.3 given in the Application section 2.3; excluding Tables 2.3.1, 2.3.3, 2.3.8, 2.3.9, 2.3.10, 2.3.12, 2.3.13.	11/10/02
Response to Sch 4 Notice	Item 4, 9, 10,11, 12, 13, 14, 15, 16, 17, 18, 19, 20	11/10/02
Application for variation	Application for variation dated 25/07/03	31/07/03

BV4916		
Response to request for information	Response dated 23/09/03	23/09/03
Application for variation JP3030LM	Application for variation dated 22/04/05.	29/04/05
Application for Variation WP3031LR	Application for Variation dated 12/07/06	12/07/06
Application for variation PP3936SQ	Application for variation dated 24/11/05	28/11/05
Response to request for information	Response dated 26/05/06	26/05/06
Application for variation EA/EPR/BT4885IT/V006	Application for variation dated December 2009	29/12/09
Application for variation EA/EPR/BT4885IT/V008	Application for variation dated 10/05/10 - Technical Description – Dry Materials Recycling Facility and Annex 3 (MRF Risk Assessment)	10/05/10

Schedule 3 – Emissions and monitoring

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. unit) Note 1	Reference Period Note 1	Monitoring frequency	Monitoring standard or method
W1	Biological Oxygen Demand (measured after 5 days at $20^{O}C$) with nitrification suppressed by the addition of allylthiourea)	Treated effluent from the Effluent Treatment Plant	50mg/l		Weekly	ISO 5815: 1989
W1	Suspended Solids	Treated effluent from the Effluent Treatment Plant	60 mg/l	For 95% of all measured values of periodic samples taken over one month	Weekly	BS EN 872
W1	pH max	Treated effluent from the Effluent Treatment Plant	9 pH	Instantaneous	Continuous	BS6068-2.50
W1	pH min	Treated effluent from the Effluent Treatment Plant	6 pH	Instantaneous	Continuous	BS6068-2.50
W1	Ammoniacal Nitrogen	Treated effluent from the Effluent Treatment Plant	4 mg/l	Instantaneous	Daily	
W1	Temperature degrees Celsius	Treated effluent from the Effluent Treatment Plant	25^{o} Celsius Note 7	Continuous	Continuous	
W1	Dissolved Oxygen	Treated effluent from the Effluent Treatment Plant	Note 6 mg/l		Continuous	
W1	Maximum instantaneous Flow rate	Treated effluent from the Effluent Treatment Plant	800 l/s	24 hour period beginning 00.01	Continuous Note 3	
W1	Maximum Daily Flow	Treated effluent from the Effluent Treatment Plant	22,000 m^3/day	Instantaneous	Daily Note 4	
W1	Maximum Tidal Flow	Treated effluent from the Effluent Treatment Plant	11,000 m^3/tide	Instantaneous	Daily Note 5	

W2		Site drainage from main car park				
W3		Site drainage from northern half of main production area				
W4		Site drainage from HGV carpark and interior of the northern section of the finished paper warehouse				
W5		Site drainage from the roundwood storage area				
W5		Site drainage from south end of waste paper storage warehouse				

Note 1 – Monitoring based on flow weighed composite sample

Note 3 – Flows of the discharge shall be measured at the outlet NGR SJ 30057 71141.

Note 4 – Maximum daily flow calculated from continuous monitoring of instantaneous flow

Note 5 – Maximum tidal flow calculated from continuous monitoring of instantaneous flow during a tidal discharge

Note 6- A limit will be established following a period of monitoring.

Note 7- The maximum discharge temperature of the treated effluent from the Effluent Treatment Plant can be raised temporarily to 28^{O}C subject to the following criteria:

- The air temperature data for Hawarden Airport Met Office Station indicates an average temperature exceeding 20^{O}C for the six hours preceeding effluent discharge.
- The temporary temperature derogation only applies between the 1st May and the last day of October.

Table S3.4 Annual limits

Substance	**Limit (including unit)**		**Emission Point**
Oxides of nitrogen, oxides of sulphur, and particulate matter	Assessment year	LCP NERP Limit	Windshield comprising emission points A13 & A15
	01/01/08-31/12/08 and subsequent years until 31/12/15	Emission allowances figure shown in the NERP Register as at 30 April the following year	

4.1.6 For all waste received at or produced from the Permitted Installation, the Operator shall record (and shall retain such records for a minimum of 6 years)

a. its composition, or as appropriate, description;

b. the best estimate of the quantity produced;

c. its disposal routes; and

d. the best estimate of the quantity sent for recovery.

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Sulphur dioxide mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Total Organic Carbon (TOC) mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Oxides of nitrogen mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Gaseous chlorides as HCl mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Gaseous fluorides as HF mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Particulate Matter mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Carbon Monoxide mg m^{-3}	A20	Six months (Bi annual monitoring) Monthly (continuous monitoring)	
Cadmium & Thallium and their compounds (total)	A20	Every 6 months	
Mercury and its compounds	A20	Every 6 months	
Antimony, Arsenic, Lead, Chromium, Cobalt, Copper, Manganese, Nickel and Vanadium and their compounds (total)	A20	Every 6 months	
Dioxins / furans(WHO-TEQ Humans / Mammals)	A20	Every 6 months.	
Dioxins / furans(WHO-TEQ Fish)	A20	Every 6 months.	
Dioxins / furans (WHO-TEQ Birds)	A20	Every 6 months.	
Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	A20	Every 6 months.	
Dioxin-like PCBs (WHO-TEQ Fish)	A20	Every 6 months.	
Dioxin-like PCBs (WHO-TEQ Birds)	A20	Every 6 months.	
Poly-cyclic aromatic hydrocarbons (PAHs)	A20	Every 6 months.	

Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	APC Residues	Quarterly	
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	APC Residues	Before use of a new disposal or recycling route, or when a new waste fuel is introduced	
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Bottom Ash	Before use of a new disposal or recycling route	
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Bottom Ash	Quarterly	
Total soluble fraction and metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	Other solid residues	Before use of a new disposal or recycling route	
Metals (Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Other solid residues	Quarterly	
LOI	Bottom Ash	Monthly	
Ammonia (NH3) mg m^{-3}	A20	Six months (Bi annual monitoring) or Monthly (continuous monitoring)	
Nitrous oxide (N_2O) mg m^{-3}	A20	Every 6 months	
Biochemical Oxygen Demand mg/l	W1	Quarterly	01/01/2003
Suspended Solids mg/l	W1	Quarterly	01/01/2003
pH	W1	Quarterly	01/01/2003
Temperature degrees Celsius	W1	Quarterly	01/01/2003
Temperature degrees Celsius (when a discharge limit of $28^{O}C$ is permitted)	W1	Within 14 days of occurance – using form W3	16/12/2010
Ammoniacal Nitrogen mg/l	W1	Quarterly	01/01/2003

Flow Rate l/s	W1	Quarterly	01/01/2003
Flow m^3/day	W1	Quarterly	01/01/2003
Flow m^3/tide	W1	Quarterly	01/01/2003
Flow m^3/tide (when a discharge limit of 28^{O}C is permitted)	W1	Within 14 days of occurance – using form W3	16/12/2010
Cadmium ug/l	W1	Quarterly	01/01/2003
Mercury ug/l	W1	Quarterly	01/01/2003
Organo-tin ug/l	W1	Quarterly	01/01/2003
Microtox	W1	Quarterly	01/01/2003
Dissolved Oxygen mg/l	W1	Quarterly	01/01/2003
Dissolved Oxygen mg/l (when a discharge limit of 28^{O}C is permitted)	W1	Within 14 days of occurance – using form W3	16/12/2010
Chemical Oxygen Demand mg/l	W1	Quarterly	01/01/2003
Annual Mass Release, kg for Biochemical Oxygen Demand.	W1	Every 12 mths	01/01/2003
Annual Mass Release, kg for Ammoniacal Nitrogen	W1	Every 12 mths	01/01/2003
Oxides of nitrogen (as NO2) mg m^{-3} (½ hourly average)	A13,A15 A18	Quarterly - if used Quarterly	01/01/2003
Volatile Organic Compounds (as carbon) mg m^{-3} (½ hourly average)	A1, A10	Every 12 mths	01/01/2003

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air: Periodic monitored emissions biannually	Agency Form /PP3936SQ / A1 / Form dated May 06	May 06
Air: Periodic monitored emissions Quarterly	A9	Dec 10
Air: Continuously monitored emissions of particulates	Agency Form /PP3936SQ / A2/ Form dated May 06	May 06
Air: Continuously monitored emissions of Gaseous chlorides as HCl	Agency Form /PP3936SQ A3/ Form dated May 06	May 06
Air: Continuously monitored emissions of TOC	Agency Form /PP3936SQ / A4 / Form dated May 06	May 06
Air: Continuously monitored emissions of Carbon monoxide	Agency Form /PP3936SQ / A5 / Form dated May 06	May 06
Air: Continuously monitored emissions of Sulphur dioxide	Agency Form /PP3936SQ / A 6/ Form dated May 06	May 06
Air: Continuously monitored emissions of Oxides of nitrogen	Agency Form /PP3936SQ / A 7/ Form dated May 06	May 06
Air Continuously monitored emissions of Ammonia	Agency Form /PP3936SQ/A8 / Form dated Dec 10	Dec 10
Bottom Ash, APC Residues, Other solid residues: Composition	Agency Form /PP3936SQ / Ash 1/ Form dated May 06	May 06
Bottom Ash, APC Residues, Other solid residues: Solubility	Agency Form /PP3936SQ / Ash 2/ Form dated May 06	May 06
Ash Composition (TOC), Bottom Ash	Ash 3	Dec 10
Air: annual VOC emissions A1 and A10	A10	Dec 10
Water	W1	04/02/03
Water	W2	04/02/03
Water	W3	17/12/10
Energy	E1	04/02/03
Waste Return	R1	04/02/03

Schedule 3 – conditions to be added

None.

Schedule 4 – amended plan

None

Permit Number: BT4885IT Operator: UPM-Kymmene UK Ltd

Facility: Shotton Paper Mill Form Number: W3 / DD/MM/YY

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

Emission Point	Substance / Parameter	Emission Limit Value	Result[1]				Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
			Min	Mean	Max	Total			
W1	Temperature degrees Celsius (when a discharge limit of 28^{O}C is permitted)	28^{O}C							
W1	Flow m^{3}/tide (when a discharge limit of 28^{O}C is permitted)	11,000 m^{3}/tide							
W1	Dissolved Oxygen mg/l (when a discharge limit of 28^{O}C is permitted)	-							

Notes:

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed …… Date……..

(Authorised to sign as representative of Operator)