



**ENVIRONMENT
AGENCY**

Permit with introductory note

Pollution Prevention and Control Regulations 2000

**Kimberly-Clark Ltd
Aber Road
Flint
Flintshire
CH6 5EX**

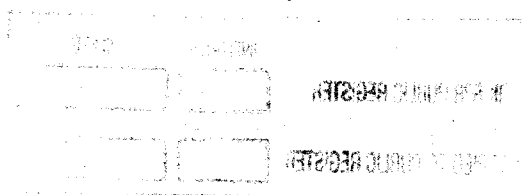
Permit number
BJ9703

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Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control Regulations 2000 (S.I.2000 No.1973) ("the PPC Regulations") to operate an installation carrying out one or more of the activities listed in Part 1 to Schedule 1 of those Regulations, to the extent authorised by the Permit.

The Permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by Regulation 12(10) of the PPC Regulations, that the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Brief description of the installation regulated by this permit

The main purpose of the activities at the installation is the manufacture of paper towels and tissues. Kimberly-Clark (UK) Ltd produces approximately 32,000 tonnes of wet crepe hand towel and 30,000 tonnes of toilet tissue per annum from two paper mills, Delyn and Coleshill, at its Flint Site, almost all of which is destined for the domestic UK market. The products are manufactured mostly from recycled fibre produced on site from the recycling of used newsprint, office waste and corrugates, although up to 2 % virgin fibre is brought in and used in the Coleshill Mill in products where there is a need for a higher specification.

At the Delyn Mill secondary fibre stock (SFS) pulp is produced by pulping the waste paper fed from the enclosed storage warehouse and waste tissue from the Coleshill Mill. The SFS is then screened in various stages to remove wood and plastics, metal staples and clips, unpulped fibre and coarse contaminants and adhesive contaminants. It is then thickened in wire presses and dirt, ink and ash particles are washed out. There are no de-inking and bleaching processes in this mill. Reject product and waste towel recycled within the Delyn Mill is repulped separately and is added to the SFS after a metal removal stage.

Various dyes and additives are added to the SFS to strengthen and dye the stock. The stock is drained on a wire screen, pressed on a heated cylinder and dried between two layers of fabric. The towel produced is then cut and wound onto large rolls prior to converting to finished product.

The recycled paper pulping process at Coleshill Mill is similar but involves careful selection of the waste mixture, depending on the finished product requirements, and additional de-inking and bleaching stages. A surfactant is added to the initial pulp to help flotation later in the process after the various screening stages to remove wood and plastics, metal staples and clips, unpulped fibre and coarse contaminants and adhesive contaminants.

Fine ink and dirt particles are removed by froth flotation using micro-bubbles of air. The foam is removed from the flotation tank and is collected and degassed before appropriate off-site disposal. The de-inked SFS then passes through a series of cleaners and screens to remove fine contaminants followed by a washing process to remove ash/filler and colloidal material. The residual inks and adhesive residues are dispersed throughout the slurry by agitation and heating. The dyes in the SFS are removed by bleaching with a stabilised solution of sodium hydrosulphite at elevated temperatures (~90 °C) after a vacuum degassing stage.

There is also a simple virgin pulper system in the Coleshill Mill which feeds to the SFS feed tank with the proportion dictated by the finished product requirements. Virgin fibre constitutes less than 2 % of the total fibre used per year.

In both mills the filtrate from the thickening and other processes is then clarified at each mill site to reduce the level of suspended solids. There is no sewage connection at the mills. The water from all internal drains within each mills and any external drains with the potential for contamination is recycled through the respective mill clarifiers. Other external drains with non-contaminated run-off are discharged through interceptors to either of the lakes and thence to the Dee Estuary.

At each mill sludge from the clarifier is de-watered in a press and stored in skips on hardstanding prior to appropriate off-site disposal. Other wastes and rejects from the process are also stored in skips on hardstanding prior to appropriate off-site disposal. The drainage from the storage areas is recycled after clarification.

The clarified water is mostly recycled within the respective mill with the excess water being sent to the effluent treatment plant at Coleshill Mill before final discharge to holding tanks prior to release to the Dee Estuary on the ebb tide.

The effluent treatment plant is a conventional aerobic activated sludge plant with a sedimentation clarifier. The aeration/digestion stage is a completely mixed tank with three surface aeration turbines. If necessary, liquid oxygen injection is installed, although this has not been used for some time. The overflow from the aeration tank is degassed before the final clarifier. Settled sludge is removed by siphon tubes on the rotating bridge of the clarifier. Sludge is either recirculated or de-watered for appropriate disposal.

The main releases from the paper mills are the discharge of effluent from the effluent treatment plant, the exhaust stacks from the boilers and dryers and the vent stacks. All these releases have previously been regulated under an IPC Authorisation number AU6820. An Environmental Management System (EMS) is in place to ensure that there is an ongoing review of the activities in the installation in order to minimise the environmental impact. An improvement programme is contained within this permit to address a number of specific issues raised by the EMS and contained within the Application.

Further information relating to the activities at the installation can be found in the non-technical summary and the main PPC Application documents held on the public registers.

Public registers are located at the following offices:

The Environment Agency, Chester Road, Buckley, Flintshire, CH7 3AJ; and

Flintshire County Council, County Hall, Mold, Flintshire, CH7 6NN.

Other PPC Permits relating to this installation

Permit holder	Permit Number	Date of Issue
None		

Superseded Licenses/Consents/Authorisations relating to this installation

Holder	Reference Number	Date of Issue
Kimberly-Clark Ltd	IPC AU6820	01.07.1996

Talking to us

If you contact the Agency about this Permit please quote the Permit Number.

The Operator should use the Emergency Hotline telephone number (0800 80 70 60) or any other number notified to it to give a notification under condition 5.1.1.

Confidentiality

The Permit requires the Operator to provide information to the Agency. The Agency will place the information onto the public registers in accordance with the requirements of the PPC Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the Agency to have such information withheld from the register as provided in the PPC Regulations. To enable the Agency to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the permit

This Permit may be varied in the future. The Status Log within the Introductory Note to any such variation will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the permit

Before this Permit can be wholly or partially surrendered, an application to surrender the Permit has to be made. For the applicant to be successful, they would have to be able to demonstrate to the Agency, in accordance with Regulation 19 of the PPC Regulations, that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 18 of the PPC Regulations. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit. If the Permit authorises the carrying out of a specified waste management activity, then there is a further requirement that the transferee is considered to be a "fit and proper person" to carry out that activity.

Status Log

Detail	Date	Comment
Application BJ9703	Received 21.02.2001	
Response to request for information	Request dated 29.04.2002	Response dated 21.05.2002
Permit BJ9703	Determined 27.03.2003	

End of introductory note.

Permit

Pollution Prevention and Control
Regulations 2000



**ENVIRONMENT
AGENCY**

Permit

Permit number

BJ9703

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control Regulations 2000 (SI 2000 No. 1973), hereby authorises

Kimberly-Clark Limited ("the Operator"),

whose Registered Office is

1 Tower View, Kings Hill, West Malling, Kent, ME19 4HA

Company registration number 308676

to operate an Installation at

Aber Road

Flint

Flintshire

CH6 5EX

to the extent authorised by and subject to the conditions of this Permit.

Signed

Roger Fisher

Authorised to sign on behalf of the Environment Agency

Date

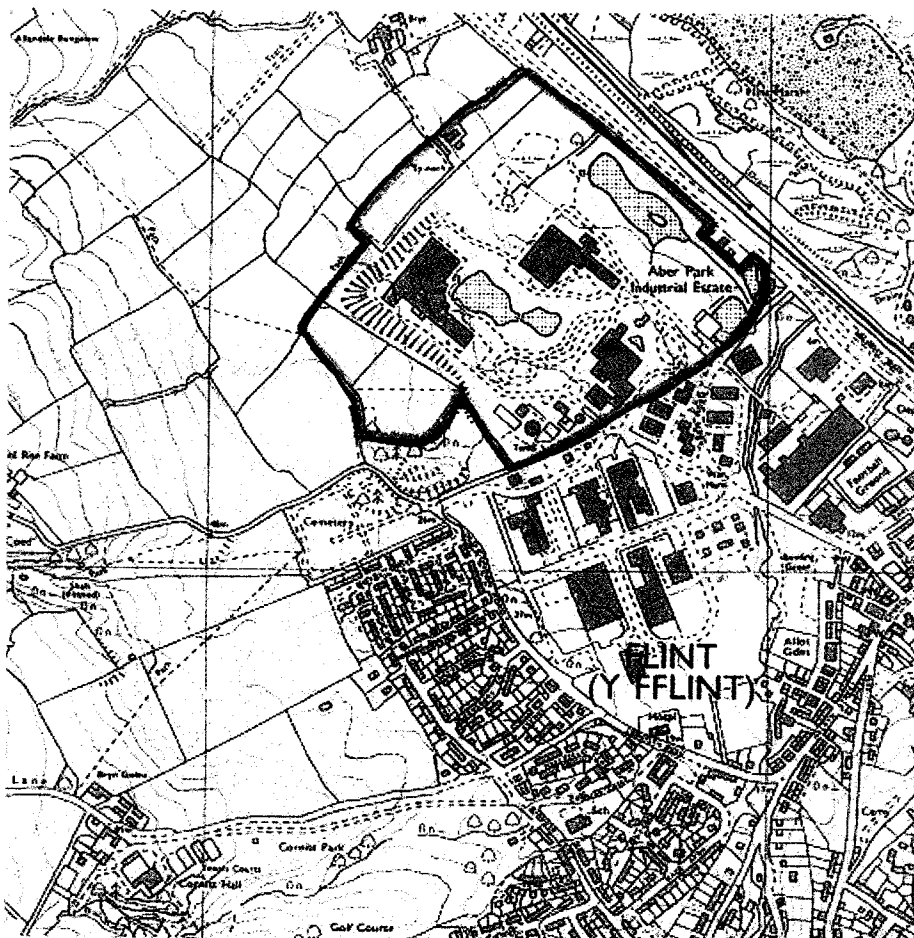
Conditions

1 The permitted installation

- 1.1.1 The Operator is authorised to carry out the activities and/or the associated activities specified in Table 1.1.1.

Table 1.1.1			
Activity under Schedule 1 of the Regulations/ Associated Activity	Description of specified activity	Schedule 1 Activity Reference (if applicable)	Limits of specified activity
Producing in an industrial plant paper and board where the plant has a production capacity of more than 20 tonnes per day.	Manufacture, in two separate mills, of paper hand towels and bathroom tissues from waste paper and virgin fibre pulp, including raw material processing, primary effluent treatment and despatch of products to distribution warehouse.	Schedule 1, Chapter 6, Section 6.1 Part (A)1	Waste paper and virgin fibre delivery to mills. Despatch of products to distribution warehouse.
Effluent treatment plant.	Secondary activated sludge treatment of the liquid effluents from the both paper mills.	Directly Associated Activity	Effluent flows from both paper mills, effluent treatment and discharge system to River Dee outfall.

The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the area shown edged in red on the plan below



*This map is based upon Ordnance Survey material with the permission
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There are no pre-operation conditions

2 Operational Matters

2.1 Management techniques and control

- 2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be managed and controlled as described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency.

Table 2.1.1 : Management and control

Description	Parts	Date Received
Application	The response to question B2.1 given in section 3.0 of the Application.	21.02.2001

- 2.1.2 All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.
- 2.1.3 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.
- 2.1.4 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.
- 2.1.5 All staff shall be fully conversant with those aspects of the Permit conditions, which are relevant to their duties and shall be provided with appropriate training and written operating instructions to enable them to carry out their duties.

2.2 Raw materials (including water)

- 2.2.1 The Operator shall, subject to the conditions of this Permit, use raw materials (including water) as described in the documentation specified in Table 2.2.1, or as otherwise agreed in writing by the Agency.

Table 2.2.1 : Raw materials (including water)

Description	Parts	Date Received
Application	The response to question B2.2 given in section 4.0 of the Application.	21.02.2001
Response to Schedule 4 Notice Request dated 29.04.2002	Response to questions 3 and 5	22.05.2002
Letters dated 28/06/02 07/02/03 and 13/02/03	IPC Authorisation AU6820	01/07/02, 17/02/03 and 17/02/03

2.3 **Operating Techniques**

- 2.3.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.3.1, or as otherwise agreed in writing by the Agency.

Table 2.3.1: Operating techniques

Description	Parts	Date Received
Application	The response to question B2.3 given in the Application sections 5.0 and 6.0.	22.02.2001
Response to Schedule 4 Notice Request dated 29.04.2002	Response to question 4	22.05.2002

2.4 **Groundwater protection**

- 2.4.1 The Permitted Installation shall, subject to the conditions of this Permit, be controlled as described in the documentation specified in Table 2.4.1, or as otherwise agreed in writing by the Agency.

Table 2.4.1: Groundwater protection

Description	Parts	Date Received
Application	The response to question B2.4 given in the Application section 7.0	21.02.2001
Response to Schedule 4 Notice Request dated 29.04.2002	Response to questions 1, 2 and 8	22.05.2002

2.5 **Waste handling and storage**

- 2.5.1 The Operator shall, subject to the conditions of this Permit, handle and store waste as described in the documentation specified in Table 2.5.1, or as otherwise agreed in writing by the Agency.

Table 2.5.1: Waste handling and storage

Description	Parts	Date Received
Application	The response to question B2.5 given in the Application section 8.0	21.02.2001

- 2.5.2 Waste materials specified in Table 2.5.2 shall only be stored on the site in the location and manner specified in that table

Table 2.5.2: Waste stored on site

Description of Waste	Location of Storage on Site	Manner of Storage	Storage Conditions
Effluent Sludge (40% solids)	Effluent treatment plant area	40 m ³ skips	Storage area fully bunded with impermeable hardstanding
Stock preparation rejects	Delyn and Coleshill mill areas	40 m ³ skips	Storage area fully bunded with impermeable hardstanding
Scrap metal	Delyn and Coleshill mill areas	25 m ³ skips	Impermeable hardstanding
Corrugates	Delyn and Coleshill mill areas	40 m ³ skips	Impermeable hardstanding
Effluent Sludge (25% solids)	Delyn mill area	40 m ³ skips	Storage area fully bunded with impermeable hardstanding
Broken pallets	Delyn and Coleshill mill areas	Stacked	Impermeable hardstanding
General Waste	Delyn and Coleshill mill areas	Small skips	Impermeable hardstanding
General Waste (after compaction)	Delyn and Coleshill mill areas	40 m ³ skips	Compaction and storage area fully bunded with impermeable hardstanding
Special waste	Chemical, oil or general site stores	Designated, sealed bins or containers	Storage area fully bunded with impermeable hardstanding
Office/canteen waste	Delyn and Coleshill canteen areas	Covered 2 m ³ skips	Impermeable hardstanding

2.6 Waste recovery and disposal

- 2.6.1 The Operator shall, subject to the conditions of this Permit, recover and dispose of waste as described in the documentation specified in Table 2.6.1, or as otherwise agreed in writing by the Agency.

Table 2.6.1: Waste recovery and disposal

Description	Parts	Date Received
Application	The response to question B2.6 given in the Application section 9.0	21.02.2001

2.7 Energy Efficiency

- 2.7.1 The Operator shall, subject to the conditions of this Permit, use energy as described in the documentation specified in Table 2.7.1, or as otherwise agreed in writing by the Agency.

Table 2.7 1: Energy efficiency

Description	Parts	Date Received
Application	The response to question B2.7 given in the Application section 10.0	21.02.2001

- 2.7.2 The Operator shall produce a report annually on the energy consumption of the installation. This report shall be sent to the Agency.
- 2.7.3 The Operator shall have an energy efficiency plan which shall be updated annually.

2.8 Accident prevention and control

- 2.8.1 The Operator shall, subject to the conditions of this Permit, prevent and limit the consequences of accidents as described in the documentation specified in Table 2.8.1, or as otherwise agreed in writing by the Agency.

Table 2.8.1 : Accident prevention and control		
Description	Parts	Date Received
Application	The response to question B2.8 given in the Application section 11.0	21.02.2001

2.9 Noise and vibration

- 2.9.1 The Operator shall, subject to the conditions of this Permit, control noise and vibration as described in the documentation specified in Table 2.9.1, or as otherwise agreed in writing by the Agency.

Table 2.9.1 : Noise and vibration		
Description	Parts	Date Received
Application	The response to question B2.9 given in the Application section 12.0	21.02.2001

- 2.9.2 The Operator shall implement the Noise Management Plan produced in accordance with the Improvement Programme (Reference 15 in Table 9.1.1).

2.10 Monitoring

- 2.10.1 The Operator shall, subject to the conditions of this Permit, carry out, evaluate and assess monitoring as described in the documentation specified in Table 2.10.1, or as otherwise agreed in writing by the Agency.

Table 2.10.1 : Monitoring		
Description	Parts	Date Received
Application	The response to question B2.10 given in the Application section 13.0.	21.02.2001

- 2.10.2 Where requested in writing by the Agency, the Operator shall provide at least 14 days advance notice of undertaking monitoring/spot sampling.
- 2.10.3 There shall be provided:

a safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2, unless otherwise specified in that Schedule; and

b safe means of access to other sampling/monitoring points when required by the Agency.

2.11 **Decommissioning**

2.11.1 The Operator shall, subject to the conditions of this Permit, make provision for decommissioning the installation as described in the documentation specified in Table 2.11.1, or as otherwise agreed in writing by the Agency.

Table 2.11.1 : Decommissioning		
Description	Parts	Date Received
Application	The response to question B2.11 given in the Application section 14.0.	21.02.2001

2.11.2 The Operator shall maintain an up to date site closure plan during the life of the installation.

2.12 **Multi-operator installations**

2.12.1 This is not a multi-Operator Installation.

3

Records

- 3.1.1 A record (a "Specified Record") shall be made of:-
- a** any malfunction, breakdown or failure of plant, equipment or techniques (including down time and any short term and long term remedial measures) that may have, has had or might have had an effect on the environmental performance of the Permitted Installation. These records shall be kept in a log maintained for that purpose;
 - b** all monitoring and sampling taken or carried out in accordance with the conditions of this permit and any assessment or evaluation made on the basis of such data.
- 3.1.2 There shall be made available for inspection by the Agency at any reasonable time:
- a** Specified Records;
 - b** any other records made by the Operator in relation to the operation of the Permitted Installation ("Other Records").
- 3.1.3 A copy of any Specified or Other Records shall be supplied to the Agency on demand and without charge.
- 3.1.4 Specified Records and Other Records shall:-
- a** be legible;
 - b** be made as soon as reasonably practicable; and
 - c** indicate any amendments which have been made and shall include the original record wherever possible.
- 3.1.5 Specified Records and Other Records shall be retained for a minimum period of 4 years from the date when the records were made.
- 3.1.6 For all waste received at or produced from the Permitted Installation, the Operator shall record (and shall retain such records for a minimum of 4 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.
- 3.1.7 A record shall be made at the Permitted Installation of any complaints concerning the Installation's effect or alleged effect on the environment. The record shall give the date of complaint, time of complaint, a summary of any investigation and the results of such investigation. Such records shall be made in a log kept for this purpose.

4

Reporting

- 4.1.1 All reports and notifications required by this Permit, or by Regulation 16 of the PPC Regulations, shall be sent to the Agency at the address notified in writing to the Operator by the Agency.
- 4.1.2 The Operator shall report the parameters listed in Table S2 to Schedule 2 as follows:
- a in respects of the emission points specified;
 - b for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
 - c giving the information from such results and assessments as may be required by the forms specified in those Tables; and
 - d sending the report to the Agency within 28 days of the end of the reporting period.
- 4.1.3 The Operator shall, within 36 months of the issue of this Permit, submit a report on potential environmental improvements to the Permitted Installation. For each of the subject areas identified in Section 2 of the appropriate technical guidance, the report shall assess the costs and benefits of alternative techniques that may provide environmental improvement. This shall include, but not be limited to, those techniques listed in guidance. The methodologies used should be based on those given in Agency guidance note IPPC H1 (Environmental Assessment and Appraisal of BAT) and should justify, against the Best Available Techniques criteria, where potential improvements are not planned to be implemented. As part of their management system the Operator shall submit an updated report every 36 months.
- 4.1.4 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.
- 4.1.5 Fugitive emissions shall be reviewed by the Operator on an annual basis and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them.
- 4.1.6 The Operator shall assess the opportunities for sourcing raw materials and chemicals with reduced environmental impact. A report shall be submitted to the Agency every two years.
- 4.1.7 The Operator shall investigate the possibilities of the elimination of the use of virgin fibre. A report shall be submitted to the Agency every four years.
- 4.1.8 The Operator shall determine the Specific Water consumption of both Delyn and Coleshill Mills on a routine basis. A report shall be submitted to the Agency every three years.

- 4.1.9 The Operator shall investigate the possibilities for recycling loose corrugates from the Coleshill Mill. A report shall be submitted to the Agency every four years.
- 4.1.10 The Operator shall assess the opportunities for utilising waste sludges. A report shall be submitted to the Agency every three years.
- 4.1.11 The intended waste disposal (and recovery and treatment, if appropriate) sites for the waste sludges shall be audited by the Operator and an annual report sent to the Agency.

5

Notifications

5.1.1

The Operator shall notify the Agency **without delay** of:-

- a** the detection of an emission of any substance which exceeds any limit or criteria in this Permit specified in relation to the substance;
- b** the detection of any fugitive emission which has caused or may cause pollution unless the quantity emitted is so trivial that it would be incapable of causing pollution;
- c** the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause pollution; and
- d** any accident which has caused or may have the potential to cause pollution.

5.1.2

The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1 of this Permit by sending:-

- a** the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
- b** the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;

and such information shall be in accordance with that Schedule.

5.1.3

The Operator shall give written notification as soon as practicable, of any of the following:

- a** permanent cessation of the operation of any part of or all of the Permitted Installation;
- b** cessation of the operation of any part of or all of the Permitted Installation for a period, likely to exceed 1 year; and
- c** resumption of the operation of any part of or all of the Permitted Installation after a cessation notified under 5.1.3(b).

5.1.4

The Operator shall notify the following matters to the Agency, in writing, within 14 days of their occurrence:

- i** any change in the Operator's trading name, registered name or registered office address;
- ii** a change to any particulars of the Operator's ultimate holding company (including details of an ultimate holding company where the Operator has become a subsidiary);
- iii** any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

5.1.5

Where the Operator has entered into a Climate Change Levy Agreement with the Government, the Operator shall, within 14 days, notify the Agency, in writing, in the event that the Secretary of State has not re-certified that agreement.

6

Emissions

6.1

Emissions into air

6.1.1

Emissions to air from the emission point(s) specified in Table 6.1.1 shall only arise from the source(s) specified in that Table.

Table 6.1.1: Emission points into air

Emission point reference/description	Source	Location of emission point
A1	Delyn mill boiler flue	Point A1 in Figure 5.2.2.1
A2	Delyn mill drying hood exhaust	Point A2 in Figure 5.2.2.1
A3	Delyn mill H&V extract fans (12)	Points A3 in Figure 5.2.2.1
A4	Delyn mill H&V louvered vents (9)	Points A4 in Figure 5.2.2.1
A5	Delyn mill hot water tank exhaust	Point A5 in Figure 5.2.2.1
A6	Coleshill mill boiler flue	Point A6 in Figure 5.1.2-1
A7	Coleshill mill drying hood	Point A7 in Figure 5.1.2-1
A8	Coleshill mill H&V fan 1	Point A8 in Figure 5.1.2-1
A9	Coleshill mill H&V fan 2	Point A9 in Figure 5.1.2-1
A10	Coleshill mill H&V fan 3	Point A10 in Figure 5.1.2-1
A11	Coleshill mill H&V fan 4	Point A11 in Figure 5.1.2-1
A12	Coleshill mill H&V fan 5	Point A12 in Figure 5.1.2-1
A13	Coleshill mill H&V fan 6	Point A13 in Figure 5.1.2-1
A14	Coleshill mill de-ink vacuum exhaust	Point A14 in Figure 5.1.2-1
A15	Coleshill mill dust extraction flue	Point A15 in Figure 5.1.2-1
A16	Coleshill mill stock preparation extract duct	Point A16 in Figure 5.1.2-1
A17	Coleshill mill roof mounted air extract units (8)	Points A17 in Figure 5.1.2-1

6.1.2

The limits for emissions into air for the parameters and emission points set out in Table 6.1.3 shall not be exceeded.

6.1.3

The Operator shall carry out monitoring of the parameters listed in Table 6.1.3, from the emission points and at least at the frequencies specified in that Table.

Table 6.1.3: Emission limits into air

Parameters	Emission Point				
	A1	A2	A6	A7	A15
Oxides of nitrogen (as NO ₂) mgm ⁻³ (½ hourly average)	200 (see Notes 1 & 2)	NA	250 (see Notes 1 & 2)	50 (see Notes 1 & 2)	NA
Sulphur dioxide mgm ⁻³ (½ hourly average)	20 (see Notes 1 & 2)	NA	30 (see Notes 1 & 2)	30 (see Notes 1 & 2)	NA
Particulate mgm ⁻³ (min ^m 4 hour sample)	NA	(see Notes 2 & 3)	NA	(see Notes 2 & 3)	(see Notes 2 & 3)

- Notes:
1. when burning gas as the fuel;
 2. bi-annual monitoring frequency; and
 3. no limit set; results to be reported.

- 6.1.4 Where an annual mass limit for a substance is stated in Table 6.1.4, the aggregate emission of such substance from the Permitted Installation into air from the emission point(s) specified in Table 6.1.2 shall not exceed that limit in any year.

Table 6.1.4 Annual mass limits	
Substance	Limit – Tonnes
	No limits set

- 6.1.5 There shall be no odour from the activities at the installation detectable beyond the site boundary.

6.2 Emissions to land

6.2.1 There shall be no emission to land from the Permitted Installation

6.2.2 The Operator shall notify the Agency, as soon as practicable, of any information concerning the state of the Site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.

6.3 Emissions to water [other than emissions to sewer]

6.3.1 Emissions to water from the emission point specified in Table 6.3.1 shall only arise from the source specified in that Table.

Table 6.3.1: Emission points into water

Emission Point Reference.	Source	Receiving Water
W1	Clarifiers - Delyn Mill	Final effluent treatment plant - Coleshill Mill
W2	Clarifiers - Coleshill Mill	Final effluent treatment plant - Coleshill Mill
W3	Effluent Treatment Plant	Dee Estuary at NGR SJ 246 741
-	Clean and uncontaminated site surface water from roofs, yards, paths or roads	Dee Estuary via Flint Mill Lake and the Swinchiard Brook

6.3.2 Limits for the emissions to water for the parameter(s) and emission point(s) set out in Table 6.3.3 shall not be exceeded.

6.3.3 The Operator shall carry out monitoring of the parameters listed in Table 6.3.3, from the emission points and, at least, at the frequencies specified in that Table.

Table 6.3.3: Emission limits into water

Parameter	Emission Point W3	Monitoring Frequency
Biological Oxygen Demand (measured after 5 days at 20 ° C with nitrification suppressed by the addition of alyl-thiourea) (mg l ⁻¹)	70	Twice per week (see Note 1)
Ammonia (mg l ⁻¹)	8	Twice per day (see Note 2)
Total Suspended Solids (mg l ⁻¹)	80	Twice per day (see Note 1)
Mercury (µg l ⁻¹)	0.1	Bi-annual (see Note 1)
Pentachlorophenol (µg l ⁻¹)	4	Bi-annual (see Note 1)
Cadmium (µg l ⁻¹)	0.3	Bi-annual (see Note 1)
pH – maximum	9	Continuous (see Note 1)
pH – minimum	5	Continuous (see Note 1)
Maximum Temperature (° C)	30	Continuous (see Note 3)
Peak Flow Rate (l s ⁻¹)	500	Continuous (see Note 4)
Maximum Tidal Volume (m ³ tide ⁻¹)	3182	Continuous (see Notes 4 & 5)
Maximum Daily Volume (m ³ day ⁻¹)	6364	Continuous (see Notes 4 & 5)

- Notes: 1. Monitored in final effluent;
 2. Monitored in aeration tank;
 3. Monitored in final treated effluent tank;
 4. Monitored after the discharge pump; and
 5. Maximum tidal and daily flow calculated from continuous monitoring of instantaneous flow.

6.3.4 There shall be no emission into water from Emission Point W3 of any substance prescribed for water for which no limit is specified in Table 6.3.3 except in a concentration which is no greater than the background concentration.

- 6.3.5 Where an annual mass limit for a substance is stated in Table 6.3.5, the aggregate emissions of such substance from the Permitted Installation into water from the emission point(s) specified in Table 6.3.1 shall not exceed that limit in any year.

Table 6.3.5 Annual mass emission limits	
Substance	Limit – kg
	No limits set

6.4 Emissions to sewer

6.4.1 No emission shall be made into any sewer from the Permitted Installation

6.5 **Emissions of heat**

6.5.1 No conditions are specified.

6.6 Emissions of noise and vibration

6.6.1 No conditions are specified.

7 Transfer to effluent treatment plant

- 7.1.1 Transfers to effluent treatment plant shall occur only from the points specified in Table 7.1.1 and transfers from those points shall arise only from the sources and shall be released only to the treatment plant specified in that Table.

Table 7.1.1 Transfer points to effluent treatment plant		
Transfer point identifier	Source	Effluent Treatment Plant
W1	Clarifiers - Delyn Mill	Final effluent treatment plant - Coleshill Mill
W2	Clarifiers - Coleshill Mill	Final effluent treatment plant - Coleshill Mill

8

Off site conditions

8.1.1

No off site conditions are necessary.

9 Improvement programme

- 9.1.1 The Operator shall complete the requirements specified in Table 9.1.1 by the date specified in that Table, and shall send written notification of the date of completion of each requirement to the Agency, at the Reporting Address, within 14 days of the completion of each such requirement.

Table 9.1.1: Improvement programme requirements

Reference	Requirement	Date
1	A report shall be sent to the Agency on establishing the proposed Kimberly-Clark Corporation Environmental Management System at the Flint Site. The report shall include proposals for a programme to implement the system by not later than 31 st December 2005.	31 st October 2003
2	The Operator shall assess the opportunities for sourcing raw materials and chemicals with reduced environmental impact. A report shall be submitted to the Agency.	31 st October 2003.
3	The Operator shall establish the environmental fate of all raw materials and chemicals, including contaminants contained within them. A report shall be submitted to the Agency.	28 th February 2004
4	The Operator shall investigate alternative remedies to the operative comfort/H&S issues which lead to use of raw water in the Delyn Mill pulper. A report on the feasibility to revert back to the use of recycled water shall be submitted to the Agency.	31 st October 2003
5	The Operator shall investigate possibilities to further reduce the use of virgin fibre. A report shall be submitted to the Agency.	31 st October 2003
6	The Operator shall investigate the reduction of the raw water on the new tissue machine in the Coleshill Mill. A report shall be submitted to the Agency.	31 st July 2003
7	The operator shall assess the requirement to provide pollution protection devices on all release points to Flint Lake. A report shall be submitted to the Agency.	28 th February 2004
8	The Operator shall investigate the effect of truck wash detergent on the pollution protection devices leading to Flint Lake and, if necessary, recommend appropriate remedial measures with a timetable for implementation. A report shall be submitted to the Agency.	28 th February 2004
9	The operator shall assess the potential for recycling the loose corrugates from the Coleshill Mill. A report shall be submitted to the Agency.	31 st October 2003
10	The Operator shall report the details of the various options for the disposal and utilisation of the sludges that are under consideration including the progress of any research or investigations into the feasibility of utilising the waste sludges.	31 st July 2003
11	The Operator shall either provide details of, or propose an extended monitoring programme for the waste sludges to establish, the presence of contaminants, i.e. heavy metals and persistent organic compounds. A report on the feasibility of landspreading shall then be submitted to the Agency.	28 th February 2004
12	The Operator shall investigate the feasibility of alternative sludge de-watering techniques. A report shall be submitted to the Agency.	31 st March 2004
13	Following the establishment of the proposed Kimberly-Clark Corporation Environmental Management System at the Flint Site, the operator shall confirm that an accident management plan is incorporated in the system.	To be agreed
14	Following the establishment of the proposed Kimberly-Clark Corporation Environmental Management System at the Flint Site, the operator shall confirm that an emergencies procedures plan is incorporated in the system.	To be agreed
15	The Operator shall prepare a Noise Management Plan. A copy of the draft together with a proposed timetable for implementation shall be submitted to the Agency for agreement before implementation of the plan.	To be agreed
16	The Operator shall propose a timetable for adopting the relevant standards, including MCERTS, for the monitoring of air and water emissions. A report shall be submitted to the Agency.	31 st July 2003

Permit and introductory note: PPC Regulations 2000
Improvement programme

Table 9.1.1: Improvement programme requirements		
17	The Operator shall establish a programme for the periodic surveying and reporting of the integrity of the bunds and hardstanding and the underground drains, pipework and services.	31 st July 2003
18	Following the establishment of the proposed Kimberly-Clark Corporation Environmental Management System at the Flint Site, the operator shall confirm that a site closure plan is incorporated in the system.	To be agreed
19	The Operator shall investigate the feasibility of fitting low NO _x burners to the boilers and heaters. A report shall be submitted to the Agency.	31 st October 2003
20	The Operator shall investigate the SO ₂ emissions from the boilers and heaters. A report shall be submitted to the Agency recommending BAT SO ₂ limits in line with the current guidance.	28 th February 2004
21	The Operator shall undertake an assessment to determine whether any of the aqueous emissions are liable to contain any of the specified List I and List II Substances (as defined in the Dangerous Substances Directive 76/464/EEC). A report shall be submitted to the Agency.	28 th February 2004

Interpretation

10.1.1 In this Permit, the following expressions shall have the following meanings:

"Authorised Officer"

means any person authorised by the Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, powers specified in Section 108(4) of that Act;

"Background concentration"

means the same as "background quantity" as defined in paragraph 11 to Part 2 to Schedule 1 of the PPC Regulations;

"Bi-annual"

means twice per year with at least five months between tests;

"°C"

means degrees Celsius;

"Fugitive emission"

means an emission from any point other than those specified in the Tables in Part 6 of this Permit;

" $L_{Aeq,T}$ "

means the A-weighted equivalent continuous equal energy noise level (dB(A)) over the time period T;

" l_s^{-1} "

means litres per second;

"Monitoring"

includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys;

" $m^3 tide^{-1}$ "

means cubic metres released per ebb flow tide;

" $m^3 day^{-1}$ "

means cubic metres released per day;

" $mg l^{-1}$ "

means milligrammes per litre;

" $mg m^{-3}$ "

means milligrammes per cubic metre;

"Permitted Installation"

means the activities and the limits to those activities described in Table 1.1.1 of this Permit;

"PPC Regulations"

means the Pollution Prevention and Control Regulations 2000 (SI 2000 No. 1973) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit;

"Staff"

includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors;

"Substances prescribed for water"

means those substances mentioned in paragraph 13 of Part 2 of Schedule 1 to the PPC Regulations;

"Year"

means calendar year ending 31 December; and

" $\mu\text{g l}^{-1}$ "

means microgrammes per litre.

10.1.2 Where a minimum limit is set for any emission parameter, references to exceeding the limit shall mean that the parameter shall not be less than that limit.

10.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means;

- a** in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- b** in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

11

Written agreement to changes

11.1.1 When the qualification "or as otherwise agreed in writing" is used in a condition of this Permit, the Operator shall seek such agreement in the following manner:

- a** the Operator shall give the Agency written notice of the details of the proposed change, indicating the relevant part(s) of this Permit; and
- b** such notice shall include an assessment of the possible effects of the proposed change (including waste production) on risks to the environment from the Permitted Installation.

11.1.2 Any change proposed according to condition 11.1.1 and agreed in writing by the Agency, shall not be implemented until the Operator has given the Agency prior written notice of the implementation date for the change. As from that date, the Operator shall operate the Permitted Installation in accordance with that change, and any relevant documentation referred to in this Permit shall be deemed to be amended.

Schedule 1

Confirmation of condition 5.1.1 notifications, in accordance with condition 5.1.2

This Schedule outlines the information that the Operator must provide to the Agency to satisfy condition 5.1.2 of this Permit.

Units of measurement used in information supplied under Part A and B requirements must be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

Returns should contain:

Part A

- ☐ Name of Operator.
- ☐ Permit Number
- ☐ Location of Installation.
- ☐ Date information provided.
- ☐ Time, date and location of the emission.
- ☐ Identity and details of the substance[s] emitted to include:-
 - ☐ Best estimate of the quantity or the rate of emission, and the time during which the emission took place.
 - ☐ Environmental medium into which the emission took place.
 - ☐ Measures taken, or intended to be taken, to stop the emission.

Part B

- ☐ Date and time of emission
- ☐ Any more accurate information on the matters notified under Part A.
- ☐ Measures taken, or intended to be taken, to prevent a recurrence of the incident.
- ☐ Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the emission.
- ☐ The dates of any Part A notifications within in the previous 24 months.

- ☐ Name ☐ Post.....
- ☐ Signature ☐ Date
- ☐ Statement that signatory is authorised to sign on behalf of Kimberly-Clark (UK) Ltd.

Schedule 2

Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 of this Permit, are listed below.

Table S2: Reporting of monitoring data			
Parameter	Emission point	Reporting period	Period begins
Oxides of nitrogen (as NO ₂)	A1, A6 & A7	6 monthly	1 st January 2003
Sulphur dioxide	A1, A6 & A7	6 monthly	1 st January 2003
Particulate	A2, A7 & A15	6 monthly	1 st January 2003
Biological Oxygen Demand	W3	Quarterly	1 st January 2003
Ammonia	W3	Quarterly	1 st January 2003
Total Suspended Solids	W3	Quarterly	1 st January 2003
Mercury	W3	Quarterly	1 st January 2003
Pentachlorophenol	W3	Quarterly	1 st January 2003
Cadmium	W3	Quarterly	1 st January 2003
pH	W3	Quarterly	1 st January 2003
Temperature	W3	Quarterly	1 st January 2003
Discharge Flow Rate	W3	Quarterly	1 st January 2003
Tidal Volume Discharge	W3	Quarterly	1 st January 2003
Daily Volume Discharge	W3	Quarterly	1 st January 2003
Mercury	W1 & W2	6 monthly	1 st January 2003
Pentachlorophenol	W1 & W2	6 monthly	1 st January 2003
Cadmium	W1 & W2	6 monthly	1 st January 2003

Schedule 3

Forms to be used

Unless otherwise agreed in writing between Agency and the Operator, the following Agency forms are to be used for reports submitted to Agency.

Table S3:Reporting Forms		
Media/parameter	Form Number	Date of Form
Air	S3/A/1	20 th February 2003
Water (estuary)	S3/W/1	20 th February 2003
Water (effluent treatment plant)	S3/w/2	20 th February 2003

END OF PERMIT