



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Abril Industrial Waxes Limited

17A Sturmi Way
Village Farm Industrial Estate
Pyle
Bridgend
CF33 6BZ

Variation Notice Number
GP3037UP

Permit number
BV5858IW

Abril Industrial Waxes

Permit Number BV5858IW

Introductory note

This introductory note does not form a part of the permit

The following notice is issued under regulation 17 of The Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No. 1973 (as amended) (the Regulations) to vary the conditions of a permit issued under the Regulations to operate an installation. The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended schedule 3 conditions to be added and schedule 4 provisions to be amended.

The manufacturing process involves reacting acids with amines and heating the reaction to 165°C before spray drying or flaking the product into its final solid form. Total manufacturing capacity is about 2000tes pa. The basic batch production process consists of several stages, plus directly associated activities:

Raw materials, handling & storage; Chemical reaction; Effluent control; Finishing products; Packing & storage; Recycling; And Waste handling.

The two main raw materials are stearic acid and ethylenediamine which are stored in heated bulk tanks from which the material is pumped via a totally enclosed system into the reaction vessels. Products with differing properties can be made by adopting different combinations of similar fatty acids but the process is essentially the same. Therefore this variation allows the production of esters through essentially the same process but from different raw materials.

The process reacts acids with amines. It is a condensation reaction. As the reaction of the acid and amine proceeds, molecules of acid (raw material) combine with molecules of amine (raw material) to form much larger molecules (finished product). At the same time hydrogen and oxygen are released which immediately combine to form water. The reaction is exothermic giving off energy in the form of heat. The heat raises the temperature of the reacting mass so that the water is driven off in the form of steam. The steam is cooled to liquid water in the condensers and the water is discharged as effluent.

There are three reaction vessels which have common systems for raw materials and auxiliaries, this will remain unchanged. This variation introduces a third finishing line, supplied from any of the three vessels, manufacturing prill. A hot oil system which is powered by a gas boiler is used to raise the temperature to 165°C to produce the wax and complete the reaction. The new finishing line introduces three new release points, one from the bag filter outlet and two explosion vents in case of emergency. A fourth release point is also included, a relief valve from an additional Stearic Acid tank, which was installed previously under condition 1.5 – ‘Minor Operational Changes’ of the Permit.

The molten wax is then pumped via heated pipe lines to an atomizer chamber where it is spray dried to form a powder, prill or bead, depending on the customers requirement and the finishing line used, and subsequently cooled prior to bagging and palletising. Alternatively the molten wax is solidified via a cooled drum to produce a flaked form.

During the determination process of this variation it was noticed that the original Permit was issued under Section 4.1 A(1)(b) of the PPC Regulations however Section 4.1A(1)(a)iv is more appropriate for the process.

Status Log of the permit

Detail	Date	Response Date
Application BV5858	22/8/2003	-
Application duly made	2/9/2003	-
Request to extend determination	22/12/2003	Request accepted 08/01/04
Permit determined	25/3/2004	-
Regulation 16 change	12/02/07	20/03/07
Variation, GP3037UP, Application received	18/09/2007	-
Updated release point plan requested	30/10/2007	5/11/2007
Variation Notice, GP3037UP, issued	16/01/2008	-

End of Introductory Note

Variation Notice

Pollution Prevention and Control
(England and Wales) Regulations 2000

Variation Notice

Permit number

BV5858IW

Variation number

GP3037UP

The Environment Agency (the Agency) in exercise of its powers under Regulation 17 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) hereby varies the permit held by you

ABRIL INDUSTRIAL WAXES LIMITED ("the operator"),

whose registered office is

**C/O ALDBURY ASSOCIATES
MOBBS MILLER HOUSE
ARDINGTON ROAD
NORTHAMPTON NN1 5LP**

company registration number 464926

to operate an installation at

**17A STURMI WAY
VILLAGE FARM INDUSTRIAL ESTATE
PYLE
BRIDGEND
CF33 6BZ**

to the extent set out in schedules 1 to 3 of this variation notice .

The notice shall take effect from 16th January 2008

Signed	Date
	16 th January 2008

Barbara Tate, PPC Compliance Team Leader

Authorised to sign on behalf of the Agency

SCHEDULE 1 - CONDITIONS TO BE DELETED

None

SCHEDULE 2 – CONDITIONS TO BE AMENDED

1. Condition 1.1.1 shall be amended as follows:

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

Table 1.1.1		
Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 4.1 A(1)(a)iv – “Producing organic chemicals such as organic compounds containing nitrogen, such as amines, amides, nitrous-, nitro-, or azo- compounds, nitrates, nitriles, nitrogen heterocyclics, cyanates, isocyanates, di-isocyanates and di-isocyanate prepolymers.”	Industrial Wax Production	Raw materials, handling & storage; Chemical reaction; Effluent control; Finishing products; Packing & storage; Recycling; And Waste handling.
Section 4.1 A(1)(a)(ii) - “Producing organic chemicals such as organic compounds containing oxygen, such as alcohols, aldehydes, ketones, carboxylic acids, esters, peroxides, phenols, epoxy resins.”	Industrial Wax Production	Raw materials, handling & storage; Chemical reaction; Effluent control; Finishing products; Packing & storage; Recycling; And Waste handling.

2. Condition 2.1.1 shall be amended as follows:

- 2.1.1 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 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

Table 2.1.1: Operating techniques		
Description	Parts	Date Received
Application	The response to questions 2.1 and 2.2 and given in section 2.1 of the application.	22/8/03
Variation Application	The response to questions 1.2, 2.1 to 2.12 (inclusive), 3.1 and 4.1 to 4.3 (inclusive) in Part C of the Application Form.	18/09/07

3. Condition 2.2.1.2 shall be amended as follows:

2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the source(s) specified in that Table.

Table 2.2.1 : Emission points to air		
Emission point reference or description	Source	Location of emission point
A1	Explosion relief vent on atomiser	Point A1 on site plan
A2	LEV system vent	Point A2 on site plan
A3	Airmaster bag filter vent	Point A3 on site plan
A4	Flaker unit vent	Point A4 on site plan
A5	Flaker unit inlet	Point A5 on site plan
A6	Gas boiler stack	Point A6 on site plan
A7	Stearic acid tank pressure relief valve	Point A7 on site plan
A8	Ethylene diamine tank pressure relief valve	Point A8 on site plan
A9	Effluent tank vent	Point A9 on site plan
A10	Second Stearic acid tank pressure relief valve	Point A10 on site plan
A11	Explosion relief vent on second atomiser	Point A11 on site plan
A12	Second Airmaster bag filter vent	Point A12 on site plan
A13	Second Airmaster bag filter explosion vent	Point A13 on site plan

4. Condition 2.2.1.3 shall be amended as follows:

2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded.

Table 2.2.2 : Emission limits to air and monitoring				
Emission point reference	Parameter	Limit (including Reference Period)¹	Monitoring frequency	Monitoring method
A2 on ground floor plan in appendix 6 of the application	Particulates	No visible releases	Daily	Visual inspection
A3 on ground floor plan in appendix 6 of the application	Particulates	No visible releases	Daily	Visual inspection
A4 on ground floor plan in appendix 6 of the application	Particulates	No visible releases	Daily	Visual inspection
A12 on first floor plan of this variation	Particulates	No visible releases	Daily	Visual inspection

Note 1: See Section 6 for reference conditions

5. Schedule 2 shall be amended as follows:

Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

Table S2: Reporting of monitoring data			
Parameter	Emission point	Reporting period	Period begins
Number of days particulate deposits seen	A2, A3, A4 & A12	Every 3 months	01/01/08
Number of days particulate deposits not seen	A2, A3, A4 & A12	Every 3 months	01/01/08
Oil & grease mg/l	S1	Every 3 months	01/04/04
Chemical oxygen demand mg/l maximum	S1	Every 3 months	01/04/04
Chemical oxygen demand mg/l average	S1	Every 3 months	01/04/04
Suspended solids mg/l	S1	Every 3 months	01/04/04
pH max	S1	Every 3 months	01/04/04
pH min	S1	Every 3 months	01/04/04
pH average	S1	Every 3 months	01/04/04
Total flow m ³	S1	Every 3 months	01/04/04
Water usage		Every 12 months	01/01/04
Energy usage		Every 12 months	01/01/04
Waste disposal and/or recovery.		Every 12 months	01/01/04

6. Schedule 3 shall be amended as follows:

Schedule 3 - Forms to be used

Media / parameter	Form Number	Date of Form
Air	A1	5/12/07
Sewer	S1	1/3/04
Energy	E1	1/3/04
Waste Return	R1	1/3/04
Water usage	WU1	1/3/04

SCHEDULE 3 – CONDITIONS TO BE ADDED

None

SCHEDULE 4 - PROVISIONS TO BE AMENDED

1. The following provisions shall be amended as follows:

Abril Industrial Waxes Ltd ("the Operator"),

Of/ whose Registered Office (or principal place of business) is

**C/O ALDBURY ASSOCIATES
MOBBS MILLER HOUSE ARDINGTON
ROAD NORTHAMPTON
NORTHAMPTONSHIRE NN1 5LP**

Company registration number **04646926**