

Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2007

Warwick International Limited
Dock Road
Mostyn
Holywell
Flintshire
CH8 9HE

Variation notice number

EA/EPR/BU2357IP/V009

Permit number

BU2357IP

Warwick International Limited

Permit Number EA/EPR/BU2357IP/V009

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 S.I.2007 No. 3538 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility/facilities.

This variation notice has been issued in response to an application by Warwick International Limited to permit the production of a copolymer of a high viscosity synthetic rubber and a powdered polyol for use in chewing gum formulations as a biodegradability modifier. This introduces a new Schedule 1 activity namely Section 4.1 Part A(1)(a)(ix) producing organic chemicals such as synthetic rubbers where the annual production is less than 2,000 tonnes.

Production is to take place in an existing building suitably refurbished and will not introduce any new emission points to air, water or land with the exception of a vent from the initial 75 litre, and later the proposed replacement 290 litre, heated mixing equipment. This emission to air is considered to contain a low level of volatile organic compounds from the combined mixing of raw materials at elevated temperatures. The polymerisation reaction does not yield any by-products. Wash water usage and solid and packaging wastes are expected to be low. The raw materials are to be heated to reduce viscosity or melt as appropriate and a nitrogen blanketed may be employed to minimise discolouration. The resulting product may either be formed into its final shape after mixing, or may be washed, dried, and then formed prior to packing for shipment.

Warwick International Limited has been granted commercial confidentiality with respect to certain details relating to the raw materials, operating conditions and process equipment employed to protect the commercial development of novel additives for chewing gum formulations.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions and Schedule 3 lists any conditions that have been added.

Status Log

| Detail | Date | Comment |
|---|---------------------------|--|
| Application for permit BU2357 | Received 29/08/03 | Duly made 16/09/03 |
| Request to extend determination | Request dated 22/12/03 | Request accepted 05/01/04 |
| Response to request for information | Request dated 10/03/04 | Response dated 14/04/04 |
| Permit BU2357 | Issued 14/05/04 | Permit for operation of Installation under PPC Regime |
| Application for Variation AP3634SJ | Received 18/03/05 | Duly made 18/03/05 |
| Response to Schedule 7 Notice. | Schedule 7 dated 15/06/05 | Response dated 28/07/05 |
| Response to request for further information | Request dated 30/11/05 | Response dated 12/12/05 |
| Variation AP3634SJ | Issued 16/12/2005 | Variation issued to comply with the Waste Incineration (England and Wales) Regulations 2002 (SI 2002 No. 2980) (The WI Regulations) and the Pollution Prevention and Control (Waste Incineration Directive) (England and Wales) Direction 2002 |
| Application for Variation KP3937LZ | Received 04/08/05 | Duly made 04/08/05 |
| Additional Information in support of application KP3937LZ | Received 06/11/06 | Criteria for fuel switching and commitment to restrict period of gas oil firing |
| Variation KP3937LZ | Issued 21/11/06 | Variation to permit use of gas oil as stand-by fuel when the use of gas is not under economically viable conditions. |
| Application for Variation AP3338MA | Received 03/11/06 | Duly made 03/11/06 |
| Variation PP3831MU | Issued 22/01/07 | Variation to establish a revised compliance date for completion of improvement programme reference 1.4.1.8 - performance validation of the continuous emissions monitoring systems |
| Additional Information in support of application AP3338MA | Received 05/02/07 | Options appraisal for air emissions abatement and proposals regarding air emissions monitoring. |
| Variation AP3338MA | Issued 01/03/07 | Variation to permit production of sodium acetate trihydrate |
| Application for variation EA/EPR/BU2357IP/V009 | Received 23/06/08 | Duly made 23/06/08 |
| Variation EA/EPR/BU2357IP/V009 | Issued 20/08/08 | Variation to permit production of synthetic rubbers |

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2007

Permit number

EA/EPR/BU2357IP/V009

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2007 (SI 2000 No 3538) varies the permit as set out below.

Warwick International Ltd ("the Operator"),

whose Registered Office is

Dock Road

Mostyn

Holywell

Flintshire

CH8 9HE

Company registration number **2386927**

which relates to the operation of a regulated facility at

Dock Road

Mostyn

Holywell

Flintshire

CH8 9HE

and that permit is varied to the extent set out in Schedules 1 to 3 of this notice.

The notice shall take effect from 20/08/08 at 00.01 hours

| Name | Date |
|---|------|
| Ann Weedy PPC Compliance Team Leader | |

Authorised 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 to:

- 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 | Producing organic compounds containing nitrogen, (amines) | Receipt of raw materials to despatch of finished product, including internal recycling of raw materials. |
| Section 4.1 A(1)(a)(ix) : Producing organic chemicals | Producing synthetic rubbers where the annual production is less than 2,000 tonnes. | Receipt of raw materials to despatch of finished product, including internal recycling of raw materials. |
| Section 4.2 A(1)(a)(iv) : Producing inorganic chemicals | Producing inorganic salts (sodium acetate trihydrate) | Receipt of raw materials to despatch of finished product, including internal recycling of raw materials. |
| Section 5.1 A(1)(a) : Incineration of hazardous waste | On-site incineration of process wastes with the recovery of heat | Incineration of distillation residues arising during the on-site production of tetra acetyl ethylene diamine (TAED). |
| Section 5.3 A(1)(c)(ii) : Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by physico-chemical treatment | Treatment and storage of process effluent and site surface water drainage | pH adjustment and storage of process effluent arising during the on-site production of tetra acetyl ethylene diamine (TAED). |
| Directly Associated Activity | Combustion of natural gas to raise steam and heat thermal transfer fluids | Gas oil combustion: limited to periods specified in the permit for use as a stand-by fuel, for periods of natural gas interruption and for scheduled test firing of the back up facility |

2. Condition 2.1.1 shall be amended to:

- 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 the Permit.

Table 2.1.1: Operating techniques

| Description | Parts | Date Received |
|---|--|---------------|
| Application for Permit BU2357 | The response to information requirements B2.1 and B2.2 given in pages 16-47 of section 2.1, page 47-70 of section 2.2 and Appendix 9 of the Application | 29/08/04 |
| Application for variation AP3634SJ | The response to information requirements C2.1, C2.2, C2.7 and C2.10 given in pages 14-30 of Section 2.1, pages 29-30 of Section 2.2, page 39 of section 2.7, page 42-44 and 50 of section 2.10 of the Application for Variation, and accompanying report Appendix 3 as referenced in these parts of the Application. | 18/03/05 |
| Response to Schedule 7 Notice (re Application for variation AP3634SJ) | The response to information requirements 1-4, 6 and 9 of the Notice. | 28/07/05 |
| Additional Information (re Application for variation AP3634SJ) | All regarding solid waste arisings, continuous monitoring and emission limits | 12/12/2005 |
| Application for variation KP3937LZ | The response to information requirements C2.1, 2.2 and C2.3 in section 3.2.4 and section 4 of Application for Variation document reference FSA 06 PJB | 04/08/06 |
| Additional Information (re Application for variation KP3937LZ) | Letter dated 03/11/06 | 06/11/06 |
| Application for Variation AP3338MA | Application under covering letter dated 03/11/06 | 03/11/06 |
| Additional Information in support of application AP3338MA | Letter dated 01/02/07 | 05/02/07 |
| Application for variation EA/EPR/BU2357IP/V009 | Application for variation | 23/06/08 |

3. Condition 2.2.1.2 shall be amended to:

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 | Tank Farm 1 vent | 3 metre high stack |
| A2 | Plant 5 caustic scrubber vent | 15 metre high stack |
| A3 | Plant 6 caustic scrubber vent | 15 metre high stack |
| A4 | Tank Farm 2 vent | 3 metre high stack |
| A5 | Filter Dryer plant 2 scrubber vent | 26 metre high stack |
| A6 | Silo 1-4 scrubber vent | 19 metre high stack |
| A7 | Silo 5-9 scrubber vent | 21 metre high stack |
| A8 | EDA bulk storage scrubber vent | 12.9 metre high stack |
| A9a | Granulation 2 system filter vent (white) | 16.5 metre high stack |
| A9b | Granulation 2 system filter vent (coloured) | 9.5 metre high stack |
| A10 | Granulation 3 system filter vent | 19 metre high stack |
| A11 | Granulation 4 system filter vent | 16.5 metre high stack |
| A12 | Warehouse 1 (25 kg bagger unit dust extraction) | 2.7 metre high stack |
| A13 | Warehouse 2 (25 kg bagger unit dust extraction) | 2.7 metre high stack |
| A14 | Distillation residue incinerator | 30 metre high stack |
| A16 | Boiler 103 | 30 metre high stack |
| A17 | Boiler 201 | 30 metre high stack |
| A18 | Boiler 202 | 30 metre high stack |
| A19 | Boiler 301 | 30 metre high stack |
| A20 | Continuous DAED plant scrubber vent | 26 metre high stack |
| A21 | Continuous DAED HT fluid heater | 27 metre high stack |
| A22 | Continuous DAED 2 plant scrubber vent | 26 metre high stack |
| A23 | Continuous DAED storage tanks scrubber vent | 26 metre high stack |
| A24 | Plant 3 scrubber vent (sodium acetate process) | 9.1 metre high stack |
| A25 | Synthetic rubber mixer vent | 2.95 metre high stack |

4. Condition 2.2.1.3 shall be amended to:

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 [other than the incinerator plant]

| Emission point reference | Parameter | Limit (including Reference Period) ^{Note 1} | Monitoring frequency | Monitoring method |
|--|--|--|----------------------------------|--------------------------|
| A2, A3, A5, A6, A7, A20, A22, A23, A24 | Acetic acid and anhydride (as Acetic acid) | 50 mg m ⁻³ (hourly average) | Quarterly | Spot sample - see Note 2 |
| A9a, A9b, A10, A11, A12, A13 | Particulate matter | No visible release | - | - |
| A16, A17, A18, A19, A21 | Oxides of nitrogen (as NO ₂) | 170 mg m ⁻³ (hourly average) | Annual | Spot sample - see Note 2 |
| A16, A17, A18, A19, A21 | Carbon monoxide | 70 mg m ⁻³ (hourly average) | Annual | Spot sample - see Note 2 |
| A25 | Volatile organic compounds | No limit | Refer Schedule 3 Condition 1.3.1 | Spot sample - see Note 2 |

Note 1: See Condition 6.1.3 [Variation Notice AP3436SJ] for reference conditions

Note 2. Monitoring methods shall use standards in the following order of priority, unless equivalent methods have been agreed with the Environment Agency in writing:

- . Comité Européen de Normalisation (CEN)
- . British Standards Institution (BSI)
- . International Standardisation Organisation (ISO)
- . United States Environmental Protection Agency (US EPA)
- . American Society for Testing and Materials (ASTM)
- . Deutsches Institut für Normung (DIN)
- . Verein Deutscher Ingenieure (VDI)
- . Association Française de Normalisation (AFNOR)

Schedule 3 – conditions to be added

1. The following conditions are added to the permit

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in Table S1.3 by the date specified in that table unless otherwise agreed in writing by the Agency.

Table S1.3 Improvement programme requirements

| Reference | Requirement | Date |
|-----------|--|------------------|
| 1.3.1 | The Operator shall quantify the release of volatile organic compounds from the synthetic rubber mixer vent A25 and submit a report in writing to the Environment Agency Wales. | 31 December 2008 |

END OF PERMIT