Notice of variation with introductory note

Environmental Permitting (England & Wales) Regulations 2016

Warwick International Group Limited

Warwick Chemicals
Dock Road
Mostyn
Holywell
Flintshire
CH8 9HE

Variation application number
EPR/BU2357IP/V014

Permit number
EPR/BU2357IP

Warwick International Group Limited
Permit number EPR/BU2357IP

Introductory note

This introductory note does not form a part of the notice

The following notice gives notice of the variation of an environmental permit.

This variation re-introduces emission point A3 that was taken out of the permit through variation V012.

It also changes the discharge conditions in relation to times of discharge on the high tide.

This variation includes an Improvement condition requiring the operator to carry out detailed dispersion modelling of process effluent discharges.

The schedules specify the changes made to the original permit.

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

Status log of the permit		
Description	**Date**	**Comments**
Application for permit BU2357	Received 29/08/2003	Duly Made 16/09/2003.
Request to extend determination	Request dated 22/12/2003	Request accepted 05/01/2004.
Response to request for information	Request dated 10/03/2004	Response dated 14/04/2004.
Permit BU2357	Issued 14/05/04	Permit for operation of Installation under PPC regime.
Application for Variation AP3634SJ	Received 18/03/2005	Duly Made 18/03/2005.
Response to Schedule 7 Notice.	Schedule 7 dated 15/06/2005	Response dated 28/07/2005
Response to request for further information	Request dated 30/11/2005	Response dated 12/12/2005
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 04/08/2005	Duly Made 04/08/2005
Additional Information in support of application KP3937LZ	Received 06/11/2006	Criteria for fuel switching and commitment to restrict period of gas oil fining.
Variation KP3937LZ	Issued 21/11/2006	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 03/11/2006	Duly Made 03/11/2006
Variation PP3831MU	Issued 22/01/2007	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 05/02/2007	Options appraisal for air emissions abatement and proposals regarding air emissions monitoring
Variation AP3338MA	Issued 01/03/2007	Variation to permit production of sodium acetate trihydrate.
Application for variation EPR/BU2357IP/V009	Received 23/06/2008	Duly made 23/06/2008
Variation EPR/BU2357IP/V009	Issued 20/08/08	Variation to permit production of synthetic rubbers.
Variation application EPR/BU2357IP/V010	Received 15/10/2012	Administrative variation
Variation EPR/BU2357IP/V010	Issued 19/11/2012	
Environment Agency variation determined EPR/BU2357IP/V011	22/03/2013	Environment Agency variation to implement the changes introduced by the Industrial Emissions Directive
Variation application EPR/BU2357IP/V012	Duly Made 03/10/2013	Variation to remove one point source and amend another to account for a change in process on site.
Variation application EPR/BU2357IP/V012 determined	23/12/2013	Variation issued
Variation application EPR/BU2357IP/V013	Duly Made 08/05/2015	Variation to add a mixing tank and associated vent system with a new emission point; A24.
Variation application EPR/BU2357IP/V013 determined.	20/08/2015	Variation issued.
Variation application EPR/BU2357IP/V014	Duly Made 30/05/2018	Variation to add one-point source to account for a change in process on site.
Variation application EPR/BU2357IP/V014 determined.	05/07/18	

End of introductory note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2016

The Natural Resources Body for Wales ("Natural Resources Wales") in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/BU2357IP

issued to:

Warwick International Group Limited ("the operator")

whose registered office is

The Knowle
Nether Lane
Hazelwood
Derby
DE56 4AN

company registration number 02982784

to operate a regulated facility at

Warwick Chemicals
Dock Road
Mostyn
Holywell
Flintshire
CH8 9HE

to the extent set out in the schedules.

The notice shall take effect from 05/07/18

Name	Date
Holly Noble	**05/07/18**

Authorised on behalf of Natural Resources Wales

Schedule 1 – conditions to be deleted

None

Schedule 2 – conditions to be amended

The following conditions are amended as a result of the application made by the operator

Table 1.4.1 is amended to the following:

Table 1.4.1 improvement programme		
Reference	Requirement	Date
1.4.1.10	The operator shall, within 6 months of successful plant operation, submit a report in writing to Natural Resources Wales to make a proposal for a reduction in emission limits where changes in processes on site mean actual emissions of substances are far below limits currently in the permit.	To be agreed in writing with Natural Resources Wales
1.4.1.11	The operator shall supply a revised site plan showing the location of all Point Source Emissions.	31/01/14
1.4.1.12	The operator shall monitor emissions from emission point A24 (reference Table 2.2.2) on a weekly basis, for the first two months of it becoming operational. Subsequently, within 1 month of completion of the monitoring, the operator shall submit a report to Natural Resources Wales containing evidence to demonstrate that scrubbing abatement plant is not required.	To be agreed in writing with Natural Resources Wales.
1.4.1.13	The operator shall carry out detailed dispersion modelling for the Installations' effluent discharge W1 to the Dee Estuary at Mostyn. The assessment should review against the initial investigation and conclusions carried out as part of the original permit application in 2004. The assessment should demonstrate that the proposed discharge location/regime is not significantly different from the one proposed in the original permit application. The modelling and assessment report shall be submitted to Natural Resources Wales for approval.	4 months from permit issue

Table 2.1.1: Operating Techniques has been amended to the following.

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 42-44and 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	12/12/05
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
Application for variation EA/EPR/BU2357IP/V012	'AED Recycle Project' (non-technical summary), Appendix 1, appendix 2 & appendix 3.	02/10/13
Application for variation EPR/BU2357IP/V013	Part C3 Varying a bespoke installation permit – Table 3 -Technical Standards: AED Recycle Plant 4.1 Part A (1) (a) (iv) – EPR 4.01 and Permit variation application minor technical April 2015.	08/05/2015
Document 'Modification to AED Recycling Plant – Application for a minor technical permit variation'	All	08/05/15
Permit Variation Application – Permit BU 2357 (as varied)	All	29/05/18

Table 2.2.1 is amended to the following:

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-meter-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
A17	Boiler 201	30 metre high stack
A18	Boiler 202	30 metre high stack
A19	Boiler 301	30 metre high stack
A20	AED recycle plant scrubber	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	AED Residues Dilution vent	28-metre-high stack
The locations of the emission points in this table are to be shown on a revised site plan which must be provided as part of improvement condition 1.4.1 in variation notice EPR/BU2357IP/V012		

Table 2.2.2 is amended to the following:

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 (See Note 3)	Spot sample - see Note 2
A9a, A9b, A10, A11, A12, A13	Particulate matter	No visible release	-	-
A17, A18, A19, A21	Oxides of nitrogen (as NO_2)	170 mg m^{-3} (hourly average)	Annual	Spot sample - see Note 2
A17, A18, A19, A21	Carbon monoxide	70 mg m^{-3} (hourly average)	Annual	Spot sample - see Note 2

Note 1: See Condition 6.1.3 [Variation Notice AP3436SJ dated 16/12/05 for reference conditions

Note 2. Monitoring methods shall use standards in the following order of priority, unless equivalent methods have been agreed with Natural Resources Wales 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)
- Deutches Institut für Normung (DIN)
- Verein Deustcher Ingenieure (VDI)
- Association Française de Normalisation (AFNOR)
- International Standardisation Organisation (ISO)
- United States Environmental Protection Agency (US EPA)
- American Society for Testing and Materials (ASTM)
- Deutches Institut für Normung (DIN)
- Verein Deustcher Ingenieure (VDI)
- Association Française de Normalisation (AFNOR)

Note 3: A24 monitored weekly for first two months of operation, quarterly thereafter.

Table 2.2.3 is amended to the following:

Table 2.2.3 Annual limits

Substance	Limit – kg
Acetic acid (from release points A1 -A7, A20, A22, A23, A24)	15,000
Oxides of nitrogen (from release points A14, A17-A19, A21)	40,000

Table 2.2.4 is amended to the following:

Table 2.2.4: Emission point to water

Emission Point Reference or description	Source	Receiving Water
W1 situated at grid reference SJ16248090	Process Effluent Streams, surface waters drainage and cooling water blow down	Dee Estuary (Note 1 and 2)
W2 situated at grid reference SJ15898079	Uncontaminated site drainage from West end of site under flood conditions via Port of Mostyn	Dee Estuary (Note 3)

Table 2.2.5 Emission limits to water and monitoring

Emission point reference	Parameter	Limit (including Reference Period)	Monitoring frequency	Monitoring Method (Note 4)
W1	Chemical oxygen demand (COD)	6000mg/l	Each discharge	Composite sample
W1	Chemical oxygen demand (COD)	10,000 kg/day	Daily	-
W1	Biological oxygen demand (BOD)	3000 mg/l	Monthly	Composite sample
W1	Suspended solids	250 mg/l	Each discharge	Composite sample
W1	Ammoniacal Nitrogen	5 mg/l	Each discharge	Composite sample
W1	Total Hydrocarbon oil	-	Each discharge	Composite sample
W1	Halogenated organic compounds (Total AOX)	-	Monthly	Composite sample
W1	Total cyanides (as HCN)	-	Monthly	Composite sample
W1	Copper	-	Monthly	Composite samples
W1	Daily discharge volume	4500m^3	Daily	-
W1	Tidal period discharge volume	2250m^3	Tidal period	-
W1	Rate of discharge	To be determined (Note 5)	Each discharge	
W1	Temperature differential between Dee Estuary and effluent	No limit applies	Each discharge	Estuary temperature determination to be agreed in writing with NRW.
W1	Effluent temperature	35^{o}C (1st May - 31st October) 25^{o}C (1st November – 30th April)	Each discharge	-

Table 2.2.5 Emission limits to water and monitoring				
Emission point reference	**Parameter**	**Limit (including Reference Period)**	**Monitoring frequency**	**Monitoring Method (Note 4)**
W1	Maximum pH	9	Each discharge	-
W1	Minimum pH	5	Each discharge	-

Note 1: Release of effluent from W1 shall take place only between 1 and 4 hours after high tide.

Note 2: The maximum volume discharged between high water plus 1 hour and high water plus 2 hours shall not exceed 1350m^3 and the maximum volume discharged between high water plus 2 hours and high water plus 4 hours shall not exceed 900$m^{3.}$

Note 3: Release of uncontaminated surface water drainage from W2 shall take place only under conditions of site flooding and with the prior arrangement of the Port of Mostyn Authority. A representative sample of the discharge shall be taken and analysed for the above parameters

Note 4: Monitoring methods shall use standards in the following order of priority, unless equivalent methods have been agreed with Natural Resources Wales in writing:

- Comité Européen de Normalisation (CEN)
- British Standards Institute (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 Deustcher Ingenieurre (VDI)
- Association Française de Normalisation (AFNOR)

Note 5 Rate of discharge is to be determined following the outcome of Improvement Condition 1.4.1.13

Table S2 is amended as follows:

Table S2 Reporting of monitoring data			
Parameter	**Emission point**	**Reporting period**	**Period begins**
Oxides of nitrogen mg m^{-3}	A17, A18, A19, A21	Every 12 months	1 January each year
Oxides of nitrogen mg m^{-3}	A14	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Oxides of nitrogen (annual mass) kg	A14, A17-A19, A21	Every 12 months	1 January each year
Carbon monoxide mg m^{-3}	A17, A18, A19, A21	Every 12 months	1 January each year
Carbon monoxide mg m^{-3}	A14	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Acetic acid and anhydride (as acetic acid) mg m^{-3}	A2, A3 A5, A6, A7, A20, A22, A23, A24	Every 12 months	1 January each year
Acetic acid (annual mass) kg	A1-A7, A20, A22, A23, A24	Every 12 months	1 January each year

Table S2 Reporting of monitoring data			
Parameter	**Emission point**	**Reporting period**	**Period begins**
VOCs and Total Organic Carbon (TOC) mg m^{-3}	A14	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Particulate matter mg m^{-3}	A14	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Cadmium and thallium and their compounds (in total) mg m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Mercury and its compounds (in total) mg m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V and their compounds (in total) mg m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Dioxins/furans (I-TEQ) ng m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Sulphur dioxide mg m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Hydrogen chloride mg m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Hydrogen fluoride mg m^{-3}	A14	Every 6 months	1 January and 1 July respectively each year
Dioxin-like PCBs (WHO-TEQ humans/mammals)	A14	Every 6 months	1 January and 1 July respectively each year
Dioxin-like PCBs (WHO-TEQ fish)	A14	Every 6 months	1 January and 1 July respectively each year
Dioxin-like PCBs (WHO-TEQ birds)	A14	Every 6 months	1 January and 1 July respectively each year
Polycyclic Aromatic Hydrocarbons (PAHs)	A14	Every 6 months	1 January and 1 July respectively each year
Chemical oxygen demand mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Chemical oxygen demand kg/day	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Chemical oxygen demand (annual mass) kg	W1	Every 12 months	1 January each year Reported PI 1
Biochemical oxygen demand mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Suspended solids mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year

Table S2 Reporting of monitoring data			
Parameter	**Emission point**	**Reporting period**	**Period begins**
Ammoniacal nitrogen mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Total hydrocarbon oil mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Halogenated organic compounds (total as AOX) mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Total cyanides (as HCN) mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Copper mg l-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
pH	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Daily discharge volume m3	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Tidal period discharge volume m3	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Rate of discharge l s-1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Effluent temperature ºC	W1	Every 3 months	1 January, 1 April, 1 July, 1 October respectively each year
Water usage	-	Every 12 months	1 January each year
Energy usage	-	Every 12 months	1 January each year
Waste disposal and/or recovery	-	Every 12 months	1 January each year
Metals (cadmium, thallium, mercury, lead, chromium, nickel, arsenic, cobalt, vanadium, zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	Solid residues (fly ash)	Every 6 months	1 January and 1 July respectively each year

Table S2 Reporting of monitoring data			
Parameter	**Emission point**	**Reporting period**	**Period begins**
Total soluble fraction and metals (cadmium, thallium, mercury, lead, chromium, copper, manganese, nickel, arsenic, cobalt, vanadium, zinc) soluble fractions	Solid residues (fly ash)	Before use of a new disposal or recycling route	-

Schedule 3 – conditions to be added

None