Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2007

Barry Silicon Based Manufacturing Installation

Dow Corning Limited
Cardiff Road
Barry
Vale of Glamorgan
CF63 2YL

Variation notice number
EA/EPR/BR9685IX/V003

Permit number

BR9685IX

Dow Corning Ltd.,

Barry Silicon Based Manufacturing Installation
Permit Number BR9685IX

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.

The variation notice is issued in response to:

- the addition of a new release point,
- the deletion of release points no longer in use, and
- modification of the surface water discharge limit.

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 of the permit		
Detail	**Date**	**Response Date**
Application BR9685IX	Received 17/08/05	
Response to request for information	Requests dated: 30/09/05, 07/10/05, 21/10/05, 25/10/05, 03/11/05, 09/11/05	Responses dated: 03/11/05, 12/10/05, 25/10/05, 17/11/05, 08/11/05 and 15/11/05, 17/11/05 Summary response 24/01/06 21/02/06, 21/02/06
Request to extend determination	Request dated 14/12/05	Request accepted 09/01/06
Permit determined	06/06/06	
Application HP3138UU	Duly made 01/05/07	
Additional Information received		08/05/07
Response to request for additional information	15/05/07	30/05/07
Variation notice HP3138UU issued	27/06/07	
Application EA/EPR/BR9685IX/V003	Duly made 8/09/08	
Variation notice EA/EPR/BR9685IX/V003 issued	19/11/08	

Other PPC permits relating to this installation		
Operator	**Permit Number**	**Date of Issue**
Cabot Carbon Ltd.	BU2110IS	31/03/06
Npower Cogen Ltd.	BX4135IJ	30/06/06
Vopak Terminal Windmill Ltd.	KP3734SH	01/06/06

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2007

Permit number
BR9685IX

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.

Dow Corning Ltd("the operator"),

whose registered office is

Dow Corning UK
Cardiff Road
Barry
Vale of Glamorgan
CF63 2YL

company registration number 486170

holds a permit to operate a regulated facility at

Dow Corning UK
Cardiff Road
Barry
Vale of Glamorgan
CF63 2YL

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

The notice shall take effect from 19th November 2008

Name	Date
A W Leakey 	19th November 2008

Authorised on behalf of the Agency

Schedule 1 – conditions to be deleted

1. None

Schedule 2 – conditions to be amended

2. Condition 2.2.1.2 is amended to:

2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the sources specified in that Table.

Emission point reference or description	Source	Location of emission point
A1	W424 Grinding Plant bag filter vent	Point A1 on site plan B2.2.2 in Application
A2	W424 Grinding Plant bag filter vent	Point A2 on site plan B2.2.2 in Application
A3	W424 Grinding Plant bag filter vent	Point A3 on site plan B2.2.2 in Application
A4	W940 Grinding Plant bag filter vent	Point A4 on site plan B2.2.2 in Application
A5	W940 Grinding Plant bag filter vent	Point A5 on site plan B2.2.2 in Application
A6	W940 Grinding Plant bag filter vent	Point A6 on site plan B2.2.2 in Application
A7	W940 Grinding Plant bag filter vent	Point A7 on site plan B2.2.2 in Application
A8	W714 Fluidised Bed Reactor bag filter vent, located on W709	Point A8 on site plan B2.2.2 in Application
A9	W714 Fluidised Bed Reactor bag filter vent, located on W709	Point A9 on site plan B2.2.2 in Application
A10	W714 Fluidised Bed Reactor bag filter vent	Point A10 on site plan B2.2.2 in Application
A11	W714 Fluidised Bed Reactor bag filter vent	Point A11 on site plan B2.2.2 in Application
A12	W714 Fluidised Bed Reactor vent via condenser	Point A12 on site plan B2.2.2 in Application
A13	W930 Fluidised Bed Reactor catalyst filter vent	Point A13 on site plan B2.2.2 in Application
A14	W930 Fluidised Bed Reactor bag filter vent	Point A14 on site plan B2.2.2 in Application
A15	W930 Fluidised Bed Reactor bag filter vent	Point A15 on site plan B2.2.2 in Application
A16	W930 Fluidised Bed Reactor bag filter vent	Point A16 on site plan B2.2.2 in Application
A17	W930 Fluidised Bed Reactor bag filter vent	Point A17 on site plan B2.2.2 in Application
A18	W930 Fluidised Bed Reactor bag filter vent	Point A18 on site plan B2.2.2 in Application
A19	Not assigned	Not assigned
A20	W716 Hydrolysis Plant vent via condenser	Point A20 on site plan B2.2.2 in Application
A21	Not assigned	Not assigned
A22	W716 Hydrolysis Plant vent via absorber	Point A22 on site plan B2.2.2 in Application
A23	W705 Hydrolysis Plant vent via scrubber	Point A23 on site plan B2.2.2 in Application
A24	W716 Hydrolysis Plant vent via scrubber	Point A24 on site plan B2.2.2 in Application
A25	W705/W716 Hydrolysis Plant vent via scrubber	Point A25 on site plan B2.2.2 in Application
A26	W920 Hydrolysis Plant vent via scrubber	Point A26 on site plan B2.2.2 in Application
A27	W920 Hydrolysis Plant vent via condenser	Point A27 on site plan B2.2.2 in Application
A28	W920 Hydrolysis Plant tanker loading vent	Point A28 on site plan B2.2.2 in Application
A29	W343 Rearranger Plant vent via scrubber	Point A29 on site plan B2.2.2 in Application
A30	W718 Chloromethane Plant sulphuric acid tank vent	Point A30 on site plan B2.2.2 in Application
A31	W802 Tank Farm tank vent	Point A31 on site plan B2.2.2 in Application
A32	W802 Tank Farm tank vent	Point A32 on site plan B2.2.2 in Application
A33	W718 Chloromethane Plant vent via condenser and absorber	Point A33 on site plan B2.2.2 in Application
A34	W931 Chloromethane Plant vent via condenser and absorber	Point A34 on site plan B2.2.2 in Application
A35	W1206 Quench Treatment Area bag filter vent	Point A35 on site plan B2.2.2 in Application
A36	W1206 Quench Treatment Area vent via scrubber	Point A36 on site plan B2.2.2 in Application
A37	W1206 Quench Treatment Area vent via scrubber	Point A37 on site plan B2.2.2 in Application
A38	W1205 Quench Treatment Area vent via scrubber	Point A38 on site plan B2.2.2 in Application
A39	W1205 Quench Treatment Area vent via scrubber	Point A39 on site plan B2.2.2 in Application
A40	W946 Chlorosilane Recovery Unit vent via W806 scrubber	Point A40 on site plan B2.2.2 in Application
A41	W949 Energy Recovery Unit via 30m stack	Point A41 on site plan B2.2.2 in Application

A42	Waste Water Treatment Plant bag filter vent	Point A42 on site plan B2.2.2 in Application
A43	W922 Methylhydrogen Cyclics Process vent via scrubber	Point A43 on site plan B2.2.2 in Application
A44	W922 Methylhydrogen Cyclics Process tank vent	Point A44 on site plan B2.2.2 in Application
A45	W922 Methylhydrogen Cyclics Process tank vent	Point A45 on site plan B2.2.2 in Application
A46	W922 Methylhydrogen Cyclics Process tanker vent	Point A46 on site plan B2.2.2 in Application
A47	W420 Hot Oil Unit vent via 18.3m stack	Point A47 on site plan B2.2.2 in Application
A48	W948 Hot Oil Unit vent via 30m stack	Point A48 on site plan B2.2.2 in Application
A49	W1206 Quench Treatment Area vent via scrubber	Point A49 on site plan B2.2.2 in Application
A50	W957 Hydrogen Plant vent via 19m stack	Point A50 on site plan B2.2.2 in Application
A51	W940 Grinder Plant bag filter vent	Point A51 on site plan B2.2.2 in Application
A52	W920 Hydrolysis vent via scrubber	Point A52 on site plan B2.2.2 in Application
A53	W922 Methylhydrogen Cyclics Process separator vent	Point A53 on site plan B2.2.2 in Application
A54	Not in existence at time of application	Point A54 on site plan B2.2.2 in Application
A55	W348 TCS Process bag filter vent	Point A55 on site plan B2.2.2 in Application
A56	W348 TCS Process bag filter vent	Point A56 on site plan B2.2.2 in Application
A57	W348 TCS Process vent via scrubber	Point A57 on site plan B2.2.2 in Application
A58	W306 Fluids GIC Process vent	Point A58 on site plan B2.2.2 in Application
A59	W306 Fluids HVF Process vent	Point A59 on site plan B2.2.2 in Application
A60	W306 Fluids DC1107 Process vent via condenser	Point A60 on site plan B2.2.2 in Application
A61	W404 Tank Farm vent	Point A61 on site plan B2.2.2 in Application
A62	W404 Tank Farm vent	Point A62 on site plan B2.2.2 in Application
A63	W404 Tank Farm vent	Point A63 on site plan B2.2.2 in Application
A64	W406 Fluids Process vent	Point A64 on site plan B2.2.2 in Application
A65	W406 Fluids Splitter Process vent via condenser	Point A65 on site plan B2.2.2 in Application
A66	W406 Tank Farm vent	Point A66 on site plan B2.2.2 in Application
A67	W406 Tank Farm vent	Point A67 on site plan B2.2.2 in Application
A68	W422 Polymerisation Process vent via condenser	Point A68 on site plan B2.2.2 in Application
A69	W322 Hot Oil Unit vent via 15m stack	Point A69 on site plan B2.2.2 in Application
A70	W322 Hot Oil Unit vent via condenser	Point A70 on site plan B2.2.2 in Application
A71	W322 Hot Oil Unit tank vent	Point A71 on site plan B2.2.2 in Application
A72	W410 Batch Vinyl Polymer Process vent via condenser	Point A72 on site plan B2.2.2 in Application
A73	W410 Batch Vinyl Polymer Process vent via condenser	Point A73 on site plan B2.2.2 in Application
A74	W410 Amino Polymer Process (Textiles) vent via condenser	Point A74 on site plan B2.2.2 in Application
A75	W410 Acetoxysilane/ CHU Process vent via scrubber	Point A75 on site plan B2.2.2 in Application
A76	W410 Acetoxysilane Process bag filter vent	Point A76 on site plan B2.2.2 in Application
A77	W410 Release Modifier Process vent via condenser	Point A77 on site plan B2.2.2 in Application
A78	W410 Release Modifier Process vent via condenser	Point A78 on site plan B2.2.2 in Application
A79	W407 Continuous Vinyl Polymer Process vent via condenser	Point A79 on site plan B2.2.2 in Application
A80	W407 Continuous Vinyl Polymer Process vent via 25m stack	Point A80 on site plan B2.2.2 in Application
A81	W408 Tank Farm vent	Point A81 on site plan B2.2.2 in Application
A82	W414 Tank Farm vent	Point A82 on site plan B2.2.2 in Application
A83	W414 Tank Farm vent	Point A83 on site plan B2.2.2 in Application
A84	W414 Tank Farm vent	Point A84 on site plan B2.2.2 in Application
A85	W307 Multipurpose/Development Process vent via scrubber	Point A85 on site plan B2.2.2 in Application
A86	W309 Silicone Fluids Process vent	Point A86 on site plan B2.2.2 in Application
A87	W309 Silicone Fluids Process vent	Point A87 on site plan B2.2.2 in Application

A88	W309 Silicone Fluids Process vent	Point A88 on site plan B2.2.2 in Application
A89	W115 Elastomers Mixing Process vent via scrubber	Point A89 on site plan B2.2.2 in Application
A90	W115 Elastomers Mixing Process vent via dust cartridge	Point A90 on site plan B2.2.2 in Application
A91	W115 Elastomers Mixing Process vent via dust cartridge	Point A91 on site plan B2.2.2 in Application
A92	W115 Elastomers Mixing Process vent via dust cartridge	Point A92 on site plan B2.2.2 in Application
A93	W115 Elastomers Catalyst Unit vent	Point A93 on site plan B2.2.2 in Application
A94	W115 Elastomers Gum Unit vent via condenser	Point A94 on site plan B2.2.2 in Application
A95	W115 Elastomers Mixing Plant bag filter vent	Point A95 on site plan B2.2.2 in Application
A96	W115 Elastomers Mixing Plant bag filter vent	Point A96 on site plan B2.2.2 in Application
A97	W115 Elastomers Mixing Plant bag filter vent	Point A97 on site plan B2.2.2 in Application
A98	W115 Elastomers Mixing Plant bag filter vent	Point A98 on site plan B2.2.2 in Application
A99	W115 Elastomers Mixing Plant bag filter vent	Point A99 on site plan B2.2.2 in Application
A100	W115 Elastomers Mixing Plant bag filter vent	Point A100on site plan B2.2.2 in Application
A101	W115 Elastomers Mixing Plant bag filter vent	Point A101 on site plan B2.2.2 in Application
A102	W115 Elastomers Mixing Plant bag filter vent	Point A102 on site plan B2.2.2 in Application
A103	W115 Elastomers Mixing Plant bag filter vent	Point A103 on site plan B2.2.2 in Application
A104	W115 Elastomers Mixing Plant bag filter vent	Point A104 on site plan B2.2.2 in Application
A105	W115 Elastomers Mixing Plant bag filter vent	Point A105 on site plan B2.2.2 in Application
A106	W115 Elastomers Mixing Plant bag filter vent	Point A106 on site plan B2.2.2 in Application
A107	W115 Elastomers Mixing Plant bag filter vent	Point A107 on site plan B2.2.2 in Application
A108	W410 Amino Polymer Process vent	Point A108 on site plan B2.2.2 in Application
A109	W805 Spent Bed Encapsulation Process vent	Point A109 on site plan B2.2.2 in Application
A110	W805 Spent Bed Encapsulation Process vent	Point A110 on site plan B2.2.2 in Application
A111	W930 FBR Catalyst Powder Unloading System Vent	Point A111 on revised Air vent drawing
A112	W205 3401 Tilt Mixer Vent	Point A112 on revised Air vent drawing
A113	W205 301 Small Tilt Mixer Vent	Point A113 on revised Air vent drawing
A114	W1205 200 DPR Quench Vent	Point A114 on IPPC Drawing B2.2.2 Emissions/Discharge points to air/water

3. Condition 2.10.2 is amended to:

2.10.2 The Operator shall carry out environmental or other specified substance monitoring to the frequencies and methods described in Table 2.10.1

Table 2.10.1 : Other monitoring requirements				
Emission point reference or source or description of point of measurement	**Substance or parameter**	**Monitoring frequency**	**Monitoring method**	**Other specifications**
A12	Methane	Continuous	US EPA Method 18	Only when ERU not available
A12	Non-methane hydrocarbons	Continuous	US EPA Method 18	Only when ERU not available
A26	Class B VOCs	Annually	BS EN 13649	
A40	Silanes	Daily	An agreed methodology (1)	Only when ERU not available for a period greater than 6h in any day
A48	Oxides of nitrogen as NO_2	Annually	ISO 10849	
A48	CO	Annually	ISO 12039	
ERU	Process availability(2)	Continuous	Process monitoring	To be reported to Environment Agency annually
A114 (3)	Non-methane hydrocarbons	Annually	BS EN 13649	
A114 (3)	Siloxanes	Annually	An agreed methodology (1)	

Note 1: Methodology approved in writing with the Environment Agency.

Note 2: Based on the availability to process 100% of W714 FBR vent.

Note 3: Sampling to be carried out during period when releases from the batch based process are greatest.

4. Condition 2.2.2.4 is amended to:

2.2.2.4 The limits for the emissions to water for the parameter(s) and emission point(s) set out in Table 2.2.5 shall not be exceeded.

Emission point reference	Parameter	Limit (including Reference Period)	Monitoring frequency	Monitoring method [5]
W1	Flow	15 000 m^3/day [3]	Continuous	To an agreed relevant EN, BS, or ISO standard
W1	Flow	625 m^3/hour [9]	Continuous	To an agreed relevant EN, BS, or ISO standard
W1	Temperature	40 °C [1]	Continuous	An agreed method [7]
W1	pH	≥ 6, ≤ 9	Continuous	No standard method is available [4]
W1	Suspended solids	30 mg/l [1] daily composite	Daily	SCA Blue Book 105 ISBN 011751957X
W1	BOD_5	20 mg/l [2]	Monthly	SCA Blue Book 130 ISBN 0117522120
W1	Copper	0.1 mg/l [1], [6] daily composite	Daily	BS ISO 17294-2:2003 BS 6068-2.89:2003
W1	Zinc	0.5 mg/l [1] daily composite	Daily	BS ISO 17294-2:2003 BS 6068-2.89:2003
W1	Hydrocarbon oil	No visible sheen	Weekly	An agreed method [8]
W1	Halogenated organic compounds	1 mg/l [2]	Monthly	BS EN ISO 10301:1997 BS6068-2.58:1997
W2	pH	≥ 6, ≤ 9	Weekly	BS 6068-2.50:1995, ISO 10523:1994
W2	Suspended solids	30 mg/l [2]	Weekly	SCA Blue Book 105 ISBN 011751957X
W2	BOD_5	20 mg/l [2]	Monthly	SCA Blue Book 130 ISBN 0117522120
W2	COD	125 mg/l [2]	Monthly	BS ISO 15705:2002 BS 6068-2.80:2002
W2	Copper	0.15 mg/l [2]	Following each transfer from W809 to W413	BS ISO 17294-2:2003 BS 6068-2.89:2003
W2	Zinc	0.25 mg/l [2]	Following each transfer from W809 to W413	BS ISO 17294-2:2003 BS 6068-2.89:2003
W2	Hydrocarbon oil	No visible sheen	Monthly	An agreed method[8]

Note 1: Not more than 5% of samples shall exceed the emission limit value in the reporting period.

Note 2: No spot sample shall exceed the emission limit value by more than 50%.

Note 3: Maximum volume of effluent discharged during dry weather shall be 11000 m^3/day. Dry weather shall be when no rainfall has occurred at the Barry site over preceding 72h.

Note 4: The Operator shall provide a procedure/work instruction that shall be approved by the Agency for the operation of the continuous pH meter having regard to the calibration requirements in BS 6068-2.50:1995, ISO 10523:1984.

Note 5: Or to an EN, BS, ISO or SCA Blue Book standard as agreed in writing with the Agency.

Note 6: 0.2mg/l until completion of IP24.

Note 7: The Operator shall submit a method for temperature monitoring that shall be approved by the Agency.

Note 8: The Operator shall submit a method for the assessment of hydrocarbon oil contamination that shall be approved by the Agency.

Note 9: Limit only applies during dry weather, as defined in Note 3.

Schedule 3 – conditions to be added

5. None.