ENVIRONMENT AGENCY

Variation Notice with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Barry Silicon Based Manufacturing Installation
Cabot Carbon Limited
Sully Moors Road
Sully
Vale of Glamorgan
CF64 5RP

Variation Notice Number
RP3137UZ

Permit number
BU2110IS

Barry Silicon Based Manufacturing Installation
Permit Number BU2110IS

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 part of an installation. The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended and schedule 3 conditions to be added.

The variation is required to permit;

- **Installation of a new combustion air drying package that adds a new release point to air for the product of natural gas combustion, and**
- **a change in the method for monitoring stack A1 for HCl.**

Detail	Date	Response Date
Application BU2110IS	Received 17/08/05	
Response to request for information	Requests dated: 09/09/05, 22/09/05, 12/01/06, 16/01/06, 19/01/06, 10/03/06	Responses dated: 14/10/05, 26/10/05, 18/11/05, 23/11/05, 12/12/05, 19/12/05, 13/01/06, 09/02/06, 16/03/06
Request to extend determination	Request dated 14/12/05	Request accepted 19/12/05
Permit determined	Determined 31/03/06	
Application RP3137UZ	Duly made 18/10/07	
Further information request	6/11/07	8/11/07
Variation notice RP3137UZ issued	21/11/07	

Other PPC permits relating to this installation		
Operator	**Permit Number**	**Date of Issue**
Dow Corning Ltd.	BR9685IX	06/06/06
Npower Cogen Ltd.	BX4135IJ	30/06/06
Vopak Terminal Windmill Ltd.	KP3734SH	01/06/06

End of Introductory Note

Variation Notice

Permit number
BU2110IS
Variation number
RP3137UZ

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
Cabot Carbon Ltd. ("the operator"),

whose registered office (or principal office) is

Cabot Carbon Ltd
Lees Lane
Stanlow
Ellesmere Port
South Wirral
L65 4HT

Company registration number 462857

to operate part of an Installation*(s)* at
Barry Silicon Based Manufacturing Installation
Cabot Carbon Ltd
Sully Moors Road
Sully
Vale of Glamorgan
CF64 5RP

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

The notice shall take effect from 21st November 2007

Signed	Date
Andrew Gibbs	21/11/07

Andy Gibbs

Authorised to sign on behalf of the Agency

SCHEDULE 1 – CONDITIONS TO BE DELETED

1. The following conditions are deleted;

   Table 2.1.1 of Condition 2.1

   Table 2.2.1 of Condition 2.2.1.2

   Table 2.2.2 of Condition 2.2.1.3.

SCHEDULE 2 – CONDITIONS TO BE AMENDED

2. None

SCHEDULE 3 – CONDITIONS TO BE ADDED

3. The following conditions are added to the permit;

   Table 2.1.1 of Condition 2.1

Table 2.1.1: Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.1 and 2.2 given in pages 4 to 31 of the application	17/08/05
Further information	Revised plan and location of sewer emission point S1	19/12/05
Further information	Update to original improvement programme	27/01/05
Further information	Update to description of release points to air	06/02/06
Further information	Revised plan and location of effluent transfer point E1	16/03/06
Variation application	The information provided in Sections C2.1, C2.2 and C2.3 of the variation application.	01/10/07
Further information	Dehumidifier design	8/11/07

Table 2.2.1 of Condition 2.2.1.2

Table 2.2.1 : Emission points to air

Emission point reference or description	Source	Location of emission point
A1	Silica production plant, acid recovery plant and vent scrubber discharges via 36m stack.	Point A1 on site plan in Application.
A2	Hydrogen production plant via 20m stack.	Point A2 on site plan in Application.
A3	Steam generation boilers via 17m stack.	Point A3 on site plan in Application.
A4	Fumed silica calciner A via 20m stack.	Point A4 on site plan in Application.
A5	Fumed silica calciner B via 20m stack.	Point A5 on site plan in Application.
A6	Central vacuum cleaning system for untreated silica via abatement.	Point A6 on site plan in Application.
A7	Central vacuum cleaning system for treated silica via abatement.	Point A7 on site plan in Application.
A8	De-aerator vent	Point A8 on site plan in Application.
A9	Silica feed tank TK26 vent via abatement.	Point A9 on site plan in Application.
A10	All bagging machines LEV via abatement.	Point A10 on site plan in Application.
A11	Treated plant silica feed tank and surge tank vent via abatement.	Point A11 on site plan in Application.
A12	Treated silica product storage silo vent via abatement.	Point A12 on site plan in Application.
A13	Treated silica reactors and production separation conveying air via 12.75m stack.	Point A13 on site plan in Application.
A14	Treated plant bagging machine and JC9 vacuum pump vent via abatement.	Point A14 on site plan in Application.
A15	Untreated plant bagging machine and JC7 vacuum pump vent via abatement.	Point A15 on site plan in Application.
A16	Untreated silica bagging machines JC7, JC8, and JC12 exhaust to sweeps, treated bagging machine JC9 exhaust to sweeps, treated silica rework station to sweeps and big bagging machine LEV to sweeps vent via abatement.	Point A16 on site plan in Application.
A17	Untreated plant bagging machine JC8 vacuum pump vent via abatement.	Point A17 on site plan in Application.
A18	Untreated plant bagging machine JC12 vacuum pump vent via abatement.	Point A18 on site plan in Application.
A19	Untreated plant bagging machine JC4 vacuum pump vent via abatement.	Point A19 on site plan in Application.
A20	Untreated plant bagging machine JC5 vacuum pump vent via abatement.	Point A20 on site plan in Application.
A21	Denser JC1 vacuum pump vent via abatement.	Point A21 on site plan in Application.
A22	Denser JC6 vacuum pump vent via abatement.	Point A22 on site plan in Application.
A23	Combustion air dryer via 5m stack	Point A23 on Site plan in Variation application

Table 2.2.2 of Condition 2.2.1.3

Table 2.2.2 : Emission limits to air and monitoring

Emission point reference	Parameter	Limit (including Reference Period)[Note1,3]	Monitoring frequency	Monitoring method
A1	Carbon monoxide	3500 mg/m³ daily average [Note 2]	Continuous	ISO 12039
A1	Oxides of nitrogen as NO_2	50 mg/m³ hourly average	Annually	ISO 10849
A1	Hydrogen chloride	10 mg/m³ hourly average	Quarterly	ASTM D 6348-03, or, BS EN 1911:1998 Parts 1 to 3, or, US EPA 26 or 26A
A1	Chlorine	10 mg/m³ hourly average	Quarterly	US EPA Method 26 or 26A
A1	Chloromethanes [Note 4]	50 mg/m³ hourly average	Quarterly	BS EN 13649
A2	Oxides of nitrogen as NO_2	200 mg/m³ hourly average	Annually	ISO 10849
A2	Carbon monoxide	200 mg/m³ hourly average	Annually	ISO 12039
A13	Formaldehyde	2 mg/m³ hourly average	Six monthly	US EPA Method 316
A6, A7, A9, A10, A11, A12, A14, A15, A16, A17, A18, A19, A20, A21, A22	Particulate	No visible releases of dust with no evidence of deposition in vicinity of stack discharge	None	Not applicable

Note 1: See Section 6 for reference conditions

Note 2: Not more than one calendar monthly average during any rolling twelve month period shall exceed the limit value by more than 10%. Not more than one half hour period (commencing on the hour or half hour) during any 24 hour period shall exceed the limit value by more than 50%.

Note 3: Where spot tests are employed the above limit shall be applied over the period of the test which shall not be less than 1 hour.

Note 4: Including CH_3Cl, CH_2Cl_2, $CHCl_3$ and CCl_4