



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Newport Semiconductor Plant
International Rectifier Newport Limited
Cardiff Road
Duffryn
Newport
NP10 8YJ

Variation Notice Number
GP3533XU

Permit number
BV7460ID

Newport Semiconductor Plant

Permit Number GP3533XU

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 and schedule 3 conditions to be added.

This permit variation is required, as information has been received under permit BV7460ID Improvement Condition IP5 regarding the air emissions from the installation, the abatement systems used and the techniques used to calculate emissions. The information allows emission limit values and monitoring requirements to be reviewed based on BAT and to meet the requirements of the Solvent Emissions Directive. In addition, three further improvement conditions (IC11, IC12 and IC13) have been set.

Status Log of the permit		
Detail	Date	Response Date
Application BV7460ID	Received 31/12/04	
Response to request for information	Request dated 17/01/05 and 06/05/05	Response dated 21/01/05 and 13/10/05
Permit determined	21/12/05	
Response to permit BV7460ID, Improvement Condition IP5		16/0207
Information received in letter relating to abatement systems		04/09/07
Information received in letter relating to abatement systems and monitoring	Request dated 06/11/07	29/01/08
Variation notice GP3533XU issued	04/04/08	

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation			
Holder	Reference Number	Date of Issue	Fully or Partially Superseded
International Rectifier Newport Limited (Surface Water Discharge Consent)	AN0272001	27 /06/1997	Fully

End of Introductory Note

Variation Notice

Pollution Prevention and Control
(England and Wales) Regulations 2000

Variation Notice

Permit number

BV7460ID

Variation number

GP3533XU

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 **International Rectifier Newport Limited** ("the operator"),

whose registered office (or principal office) is

Fox Court

14 Gray's Inn Road

London

WC1X 8HN

Company registration number 04338966

to operate an Installation at

Newport Semiconductor Plant

Cardiff Road

Duffryn

Newport

NP10 8YJ

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

The notice shall take effect from 4th April 2008

Signed

Date

	4 th April 2008
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Paul Molloy

Authorised to sign on behalf of the Agency

SCHEDULE 1 – CONDITIONS TO BE DELETED

1. None

SCHEDULE 2 – CONDITIONS TO BE AMENDED

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 given in pages 5-31 of the application	31/12/04
Information received in letter	Details relating to abatement systems in letter dated 30 th August 2007.	04/09/07
Information received in letter	Details relating to abatement systems and monitoring in letter dated 24 th January 2008.	29/01/08

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	Solvents FAB11	Point 1 on Drawing 04-IRF-IPPC-01
A2	Thermoclean 500	Point 4 on Drawing 04-IRF-IPPC-01
A3	Photo/Bench Ext/Dil	Point 5 on Drawing 04-IRF-IPPC-01
A4	Polaris1+2 Ext/Polaris 1+2 Dil	Point 6 on Drawing 04-IRF-IPPC-01
A5	G Cab Ext / Cab Dil	Point 7 on Drawing 04-IRF-IPPC-01
A6	Photo Ext / Photo Dil	Point 11 on Drawing 04-IRF-IPPC-01
A7	Photo Ext / SVG Developer	Point 12 on Drawing 04-IRF-IPPC-01
A8	Photo Ext Coat	Point 13 on Drawing 04-IRF-IPPC-01
A9	Photo Ext / SVG Developer	Point 14 on Drawing 04-IRF-IPPC-01
A10	Solvent Extraction	Point 15 on Drawing 04-IRF-IPPC-01
A11	Pyrophoric Gas	Point 2 on Drawing 04-IRF-IPPC-01
A12	S5 Scrubber	Point 17 on Drawing 04-IRF-IPPC-01
A13	Toxic Extract FAB11 Scrubbed	Point 3 on Drawing 04-IRF-IPPC-01
A14	Fab 11 Scrubbed Toxic Extract	Point 16 on Drawing 04-IRF-IPPC-01

4. Condition 2.2.1.3 shall be amended as follows
 - 2.2.1.3 The limits for emissions to air for the parameters and emission points 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 ²
A2	Class B Volatile Organic Compounds (Total as Carbon)	75mg/m ³	Annually ³	BSEN13526:2002

Note 1: See Section 6 for reference conditions.

Note 2: Or to an EN, BS, ISO, SCA blue book standard or other method as agreed in writing with the Agency.

Note 3: Until such time that a satisfactory response is received for Improvement Condition IC11 and agreed in writing by the Environment Agency.

5. Condition 2.2.8.1 shall be amended as follows

2.2.8.1 The Operator shall comply with the requirements specified in Table 2.2.11, which supplement or replace emission limit values in accordance with Regulation 12(8) of the PPC Regulations.

Table 2.2.11 Equivalent parameters and technical measures

Parameter or measure	Requirement or description of measure, and frequency if relevant
Class B Volatile Organic Compounds (Total as Carbon) Emissions from emission point A2	No emissions shall exit the emission point without abatement by RTO, carbon filter, or other technique agreed in writing with the Agency. The performance of the abatement shall be no less than as described in Table 2.1.1.
Temperature of regenerative thermal oxidiser (RTO) at emission point A2	The temperature of the RTO is to be maintained above 355°C, otherwise emissions are to be bypassed through the carbon filter or other technique as agreed in writing with the Agency.
Performance of carbon filter or other technique agreed in writing with the Agency at emission point A2	Monitoring of Volatile Organic Compounds emissions are to be carried out when the carbon filter is in use and the results used to allow the lifespan of the filter to be calculated. This is to be carried out as agreed in accordance with Improvement Condition IC12.

6. Condition 2.10.2 shall be amended as follows

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 ¹	Other specifications
A2, Regenerative Thermal Oxidiser	Temperature °C	Continuous	Note 1	None
S1	Suspended solids	Every 6 months	BS EN 872:2005, BS 6068 –2.54:2005	None

S1	Chemical Oxygen Demand	Every 6 months	BS 6068-2.34:1988	None
S1	Flow.	Continuous reported as daily averages.	As agreed under Improvement Condition IP1	None
S1	Copper	Every 6 months	BS EN 15586:2003 BS 6068-2.84:2003	None
S1	Nickel	Every 6 months	BS 6068-2.29:1987, ISO 8288-1986	None
S1	Zinc	Every 6 months	BS 6068-2.29:1987, ISO 8288-1986	None
S1	Chromium	Every 6 months	BS EN 1233:1997, BS 6068-2.38:1997	None
S1	Sulphate	Every 6 months	ISBN 0117522406	None

Note 1: Or as otherwise agreed in writing by the Agency

7. The reporting of monitoring data (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
Class B Volatile Organic Compounds (Total as Carbon).	A2	Annual ¹	01/01/08
Suspended solids	S1	Every 6 months	01/01/06

Chemical Oxygen Demand	S1	Every 6 months	01/01/06
Flow.	S1	Every 6 months	01/01/06
Copper	S1	Every 6 months	01/01/06
Nickel	S1	Every 6 months	01/01/06
Zinc	S1	Every 6 months	01/01/06
Chromium	S1	Every 6 months	01/01/06
Sulphate	S1	Every 6 months	01/01/06
pH	S1	Every 6 months	01/01/06
Production of semiconductor wafers (m ²)	Installation	Annual	01/01/06
Water usage	Installation	Annual	01/01/06
Energy usage	Installation	Annual	01/01/06
Waste disposal and/or recovery.	Installation	Annual	01/01/06
Fugitive solvent emissions (as % of solvent input)	Installation	Annual	01/01/08
Operating hours and predicted life span of carbon filter or other technique agreed in writing with the Agency	A2	Annual	01/02/08

Note 1: Until such time that a satisfactory response is received for Improvement Condition IC11 and agreed in writing by the Environment Agency.

SCHEDULE 3 – CONDITIONS TO BE ADDED

8. The following conditions are added to the permit
 - 1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme

Reference	Requirement	Date
IC11	The Operator shall carry out a monitoring exercise at emission point A2 to the BS EN 13526 standard for Class B Volatile Organic Compounds (Total as Carbon). The results shall be compared to the previous monitoring in May and November 2006 and May and November 2007 and should demonstrate whether emissions are consistently low arising from the abatement system. The report shall be submitted to the Environment Agency.	01/07/08
IC12	The operator shall submit a report detailing the methods and procedures used to monitor emissions at A2 should the abatement system (RTO) be offline. This should include: • details of any monitoring instruments to be used • details of methods to ensure the continuing performance of the secondary abatement (carbon filter) The procedures shall be implemented from the date of approval in writing by the Agency.	29/08/08
IC13	A solvent management plan shall be submitted to the Agency and shall be accordance with <i>Defra Process Guidance Note 6/45(04)</i>. The plan shall: • provide definitions and calculations for a mass balance of solvent emissions • demonstrate compliance with the VOC requirements of the guidance note • demonstrate compliance relevant mass emission limit value under The Solvent Emissions (England and Wales) Regulations 2004 The plan shall be implemented by the operator from the date of approval in writing by the Agency	31/12/08