



Environment
Agency

Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

St Asaph Infra Red Optics

Qioptiq Limited
Glascoed Road
St Asaph
Denbighshire
LL17 0LL

Variation notice number
EPR/BX4666IZ/V002

Permit number
BX4666IZ

St Asaph Infra Red Optics

Permit number BX4666IZ

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.2010 No. 675 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility.

The variation notice relates to an application by Qioptiq Limited for minor operational changes in the production of infra-red transmitting optical components. The changes include the installation of six new precision turning machines in the Ultra Precision Machining Centre (UPMC); layout modifications in the Special Materials facility with changes to local exhaust ventilation; and the installation of a new solvent cleaning line, which will eliminate the use of dichloromethane as a cleaning/degreasing solvent.

The variation notice also reflects some necessary permit condition changes initiated by the Environment Agency in relation to emissions monitoring standards and requirements of the Solvent Emissions Directive (Council Directive 1999/13/EC).

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.

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

Status Log of the permit		
Detail	Date	Response Date
Application for permit [infra red optics]	Duly made 30/12/04	-
Information Notice [Sch. 4, PPCR]	Notice dated 17/05/05	Response received 28/05/05
Permit BX4666IZ [PPCR]	Determined 04/08/05	-
Application for Variation [replacement degreasing line]	Duly made 02/12/08	-
Information Notice [Sch. 5, EPR]	Notice dated 07/01/09	Response received 12/02/09 (dated 09/02/09)
Additional Information from Applicant [inc. revised operation and solvent system for cleaning line; revised "H1" impact assessment]	Received 25/09/09 (dated 19/09/09)	-
Additional Information from Applicant [inc. solvent (manual) cleaning activity; revised plan drawing indicating point source emissions to air]	Received 04/12/09 (dated 02/12/09)	-
Additional Information from applicant regarding UPMC machines served by A2 and A10	Received 26/08/10 (dated 26/08/10)	
Variation EA/EPRBX4666IZ/V002 [EPR]	Determined 19/11/10	
Notes to status log table:	PPCR – Pollution Prevention & Control Regulations 2000 EPR – Environmental Permitting Regulations 2007; 2010	

Other Part A installation permits relating to this installation

Operator	Permit Number	Date of Issue
Qipitq Limited	JP3536LS	27/03/07
(Boron Phosphide coating – low impact installation)		

End of Introductory Note

Notice of variation

**Environmental Permitting
(England and Wales) Regulations 2010**

Permit number

BX4666IZ

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2000 No 675) varies the permit as set out below.

Qioptiq Limited ("the operator"),

whose registered office is

**Qioptiq Limited
Glascoed Road
St Asaph
Denbighshire
LL17 0LL**


company registration number **00876004**

holds a permit to operate a regulated facility at

**Qioptiq Limited
Glascoed Road
St Asaph
Denbighshire
LL17 0LL**

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

The notice shall take effect from 19 November 2010

Name	Date
	19 November 2010

Ann Weedy, PPC Team Leader

Authorised on behalf of the Environment Agency

2.2 Emissions

2.2.1 Emissions to Air, (including heat, but excluding Odour, Noise or Vibration) from Specified Points

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
A2	Ultra Precision Machining Centre (UPMC)	Plan drawing 675/41/002 note 1
A3	Glass shop paint spray booth	Plan drawing 675/41/002 note 1
A5	Infra-red windows facility	Plan drawing 675/41/002 note 1
A7	Special Materials [conventional infra red] facility	Plan drawing 675/41/002 note 1
A10	Ultra Precision Machining Centre (UPMC) [Nanotech 250 machines]	Plan drawing 675/41/002 note 1
A11	Solvent cleaning line (Optimal)	Plan drawing 675/41/002 note 1
A12	Cleaning tray exhaust	Plan drawing 675/41/002 note 1
Note 1: Drawing No. 675/41/022 (rev. F. 21-6-09) - supplementary information received 2/12/09		

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

Emission point reference	Parameter	Limit ¹	Monitoring frequency	Monitoring method ²
A2, A5, A7 and A10	Particulate Matter	1 mgm ⁻³ [each emission point]	Annual	ISO 9096
A11	VOC (total, expressed as Carbon)	75 mgm ⁻³	Annual	BS EN 13649

Note 1: limits in relation to gases from non-combustion sources, refers to the concentration at a temperature of 273K and at a pressure of 101.3 kPa, without correction for water vapour content.

Note 2: monitoring method unless otherwise agreed in writing with the Environment Agency

2.10 On-site Monitoring

2.10.2 The Operator shall carry out specified 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 ^{note 1}
A2 and A10	White Spirit, expressed as Carbon (mgm ⁻³)	Annual	BS EN 13649
A2, A5, A7 and A10	Specified metals ^{note 2} associated with particulate emission (mgm ⁻³)	Annual	ISO9096 (particulate phase capture) & analysis to UKAS certified test method
S1	Chemical Oxygen Demand (COD) (mgm ⁻³)	Quarterly	SCA Blue book 215
Note 1: monitoring method unless otherwise agreed in writing with the Environment Agency.			
Note 2: specified metals are: thallium, selenium, gallium, and arsenic, subject to relevant lens processing.			

4 Reporting

- 4.1.1 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency.
- 4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:-
- in respect of the parameters, emission points and reporting periods as specified in Table S2 to Schedule 2;
 - in respect of the performance parameters and reporting periods as specified in Table S4.1 to Schedule 4;
 - using the forms specified in Table S3 to Schedule 3 or as otherwise agreed in writing with the Environment Agency;
 - giving the information from such results and assessments as may be required by the forms specified in those Tables; and
 - to the Agency within 56 days of the end of the reporting period.

6 Interpretation

In this Permit, the following expressions shall have the following meanings:-

"*accident*" means an accident that may result in pollution;

"*annually*" means once every year;

"*application*" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a

notice served under Schedule 5 to the EP Regulations, or previously under Schedule 4 of the PPC Regulations;

"emissions to land", includes emissions to groundwater;

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2010 No. 675 [previously The Environmental Permitting (England and Wales) Regulations SI 2007 No.3538] and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations;

"fugitive emission" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit

[note in specific reference to activities falling within the scope of the Solvent Emissions Directive (Annex I to the Directive) – fugitive emissions shall mean any emissions, not in waste gases, of VOCs into air, soil and water as well as, unless otherwise stated in Annex IIA of the Solvent Emissions Directive, solvents contained in any products. They include uncaptured emissions released to the outside environment via windows, doors, vents and similar openings];

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil;

"MCERTS" means the Environment Agency's Monitoring Certification Scheme;

"Monitoring" includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys;

"Organic solvent consumption" means the total input of organic solvents into an installation in the last calendar year, or previous 12-month period, less any VOC that are recovered for reuse;

"Organic solvent" means any VOC which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials, or is used as a cleaning agent to dissolve contaminants, or as a dissolver, or as a dispersion medium, or as a viscosity adjuster, or as a surface tension adjuster, or a plasticiser, or as a preservative;

"Permitted Installation" means the activities and the limits to those activities described in Table 1.1.1 of this Permit;

"PPC Regulations" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit;

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October;

"Sewer" means sewer within the meaning of section 219(1) of the Water Industry Act 1991;

"Solvent Emissions Directive (SED)" means Council Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations;

"Staff" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors;

"Volatile Organic Compound (VOC)" means any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use;

"year" means calendar year ending 31 December.

Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 of this Permit, are specified in Table S2 below.

Table S2: Reporting of monitoring data			
Parameter	Emission point	Reporting period	Period begins
Particulate Matter (mgm ⁻³)	A2, A5, A7 & A10	Every 12 months	1 January, each year
VOC (mgm ⁻³) (total, expressed as Carbon)	A11	Every 12 months	1 January, each year
Specified metals ^{note 1} present (mgm ⁻³) [including gas flow rate m ³ s ⁻¹]	A2, A5, A7 & A10	Every 12 months	1 January, each year
Chemical Oxygen Demand (COD) (mg/l ⁻¹)	S1	Every 12 months [monitoring quarterly]	1 January, each year
White Spirit, expressed as C (mgm ⁻³) [including gas flow rate m ³ s ⁻¹]	A2 & A10	Every 12 months	1 January, each year
Thallium and its compounds, as Tl (g/year) ^{note 2}	A2, A5, A7, & A10 (combined)	Every 12 months	1 January, each year
Gallium and its compounds, as Ga (g/year) ^{note 2}	A2, A5, A7, & A10 (combined)	Every 12 months	1 January, each year
Selenium and its compounds, as Se (g/year) ^{note 2}	A2, A5, A7, & A10 (combined)	Every 12 months	1 January, each year
Arsenic and its compounds, as As (g/year) ^{note 2}	A2, A5, A7, & A10 (combined)	Every 12 months	1 January, each year
Volatile Organic Compounds (kg/year)	A11	Every 12 months	1 January, each year
Water usage (m ³)	Installation	Every 12 months	1 January, each year
Energy usage (MWh)	Installation	Every 12 months	1 January, each year
Waste disposal; and recovery (tonnes) [categorised by hazardous and non hazardous wastes]	Installation	Every 12 months	1 January, each year
Note 1: specified metals are: thallium, selenium, gallium, and arsenic			
Note 2: estimated from machine operating hours, measured gas flow rates and metal concentrations			

Schedule 3 - Forms to be used

Reporting forms to be used in accordance with condition 4.1.2 are specified in Table S3 below.

Table S3: Reporting Forms		
Media / parameter	Form Reference	Date of Form
Air (Schedule 2)	A1	Form to be agreed in writing with the Environment Agency
Sewer (Schedule 2)	S1	Form to be agreed in writing with the Environment Agency
Energy (Schedule 2)	E1	Form to be agreed in writing with the Environment Agency
Waste return (Schedule 2)	R1	Form to be agreed in writing with the Environment Agency
Water usage (Schedule 2)	WU1	Form to be agreed in writing with the Environment Agency
Performance parameters (Schedule 4)	PI1	Form to be agreed in writing with the Environment Agency

Schedule 4 - Reporting of performance parameters

Performance parameters (expressed as the specified performance indicator) required to be recorded and reported, in accordance with conditions 4.1.2 of this Permit, are specified in Table S4.1 below.

Table S4.1: Performance parameters			
Parameter	Activity	Performance indicator	Reporting Period
Fugitive emissions ¹	'Optimal' surface cleaning line	Percentage of solvent input	Every 12 months [period begins 1 January, each year]
Organic solvent consumption ¹	'Optimal' surface cleaning line	tonnes/year	Every 12 months [period begins 1 January, each year]
Note 1: determined based on the methodology in the Solvent Management Plan guidance, as provided in Annex III to Council Directive 1999/13/EC [Solvent Emissions Directive] on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations. [see also Permit section 6 (Interpretation)]			

Schedule III – conditions to be added

3. The following condition is added to the environmental permit:

2.2.4 Fugitive emissions of substances to air

2.2.4.2 Fugitive emissions¹ of organic solvent from the surface cleaning activity [activity relating to ref A11 in Table 2.2.1 of this permit] shall not exceed 20% of the solvent input. Fugitive emissions in this respect shall be determined based on the methodology in the Solvent Management Plan guidance, as provided in Annex III of the Solvent Emissions Directive.

[Note 1 - refer to Interpretation section 6 of this permit]