

**This form will report compliance with your permit as determined by an NRW officer**

Site	St Mellons EPR/BJ69681Y	Permit Ref	BJ69681Y		
Operator/Permit holder	IQE Silicon Compounds Ltd				
Regime	Installations				
Date of assessment	08/01/2018	Time in	N/A	Out	N/A
Assessment type	Audit				
Parts of the permit assessed	Annual returns and monitoring				
Lead officer's name	Willey, David				
Accompanied by					
Recipient's name/position	Paul Carroll/ Manufacturing Manager	Date issued	27/11/2018		

### Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit conditions and compliance summary	CCS Category	Condition(s) breached
B5 - Infrastructure - Plant and equipment	C3	2.1.2

**KEY:** See Section 5 for breach categories, suspended scores will be indicated as such.  
**A** = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,  
**O** = Ongoing non-compliance, not scored.

<b>Number of breaches recorded</b>	<b>1</b>	<b>Total compliance score</b> (see section 5 for scoring scheme)	<b>4</b>
------------------------------------	----------	---	----------

**If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response**

## Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

### Monitoring returns

CAR Form confirms the receipt of the following returns:

- Form A1 - HCL release to air for 6 months ending 30<sup>th</sup> June 2016 – no comments.
- Form A1 - HCL release to air for 6 months ending 31<sup>st</sup> December 2016 – no comments.
- Form A1 - HCL release to air for 6 months ending 30<sup>th</sup> June 2017 – no comments.
- Form S1 - Release to sewer for 6 months ending 30<sup>th</sup> June 2016 – no comments.
- Form S1 - Release to sewer for 6 months ending 31<sup>st</sup> December 2016 – no comments.
- Form S1 - Release to sewer for 6 months ending 30<sup>th</sup> June 2017 – no comments.
- Form A2 – Annual release summary ending 4<sup>th</sup> January 2016 – no comments
- Form E1 – Energy usage

### Review of PPC Operational Techniques at IQE Silicon Compounds September 2016

In line with IC 9.1 a 36-month review on environmental improvements was due. IQE have had their ISO 14001 and ISO9001:2008 under review due to be implemented in 2017.

The efficient use of raw materials is maintained by the site with the bulk sodium hydroxide tank making a significant reduction in CO<sub>2</sub> emissions as deliveries are now once a quarter as opposed to every 2 weeks approximately.

Waste handling techniques continue to be improved with general municipal waste very low with WEE waste generated by the introduction of LED lighting improving energy efficiency.

Accidents prevention and control, noise and vibration, monitoring and decommissioning remain unchanged.

### Fugitive emissions

A total of 51.8kg of R407C refrigerant had to be added to the chiller system in Oct and December. This equates to 91893.2kg CO<sub>2</sub> based on the GWP of 1774 for R407C.

EC Regulation No 517/2014, which came into force in the UK on 1 January 2015, is designed to

reduce emissions of fluorinated greenhouse gases (F Gases), used predominantly in the refrigeration and air conditioning sectors and which make a significant contribution to climate change.

The EC regulation is directly applicable in the UK so no domestic legislation is needed to implement its main provisions.

**Considered a category three breach of permit condition 2.1.2** where, 'All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.'

The GWP of the leaked gas could foreseeably result in a pollution that would impact on the environment. Preventative maintenance checks should identify potential leakages from the refrigerant equipment.

Any losses should be reported to NRW using the Schedule 1 Notification form.

**ACTION:** Site to provide details of the updated maintenance checks as well as ensuring the accident management plan, planned preventative maintenance, fugitive emissions plan and the EMS are updated. The requirements of the Regulation (EU) No.517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 should be taken into consideration, specifically Chapter II Containment.

#### **Annual improvement targets**

EMP-029 – target is 54.657MWh per m<sup>2</sup> wafer production, site is achieving 10.94 MWh per m<sup>2</sup>.

EMP-026 – 5% reduction of raw materials. This has not been achieved but should be by Q4 2017.

EMP-027 – 50% usage reduction, expected completion by Q4 2017.

**END**

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0032679**

**This form will report compliance with your permit as determined by an NRW officer**

Site	St Mellons EPR/BJ69681Y	Permit Ref	BJ69681Y
Operator/Permit holder	IQE Silicon Compounds Ltd	Date	08/01/2018

### Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

### Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			
B5	C3	Site to provide details of the updated maintenance checks as well as ensuring the accident management plan, planned preventative maintenance, fugitive emissions plan and the EMS are updated. The requirements of the Regulation (EU) No.517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 should be taken into consideration, specifically Chapter II Containment.	30/03/2018

## Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

### Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

**Operational Risk Appraisal (Opra)** - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General information

### Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. Health and Safety Executive, local authorities) on environmental issues
- Carrying out statistical analysis, research and development on environmental issues
- Providing public register information to enquirers
- Investigating possible breaches of environmental law
- Assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

#### What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk). If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

#### Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.