

29 JAN 2016

IQE Silicon Compounds Ltd

RELEASE TO SEWERS

Release Summary for 6 months ending 31/12/15

Operator: IQE Silicon Compounds Ltd

Permit Number: BJ6968

Location: St. Mellons

Release Points **S1**

Release points shall be sampled once per month, and results submitted on a six-month basis.

Parameter		
	Suspended Solids mg/l	pH
Maximum	22	10
Minimum	5	7.2
Average	13.40	8.62

Limits: Suspended Solids 400mg/l

pH: between 6 and 11

Signed on behalf of Operator:

Dated: 26/01/2016

Form S1(Version date 30/04/01)

IQE Silicon Compounds Ltd

RELEASE INTO AIR

Release Summary for 6 months ending 31/12/15

Operator: IQE Silicon Compounds Ltd

Permit Number: BJ6968

Location: St. Mellons

Parameter: Hydrogen Chloride (mg/m3)

Release points shall be sampled on a six-monthly basis

Release Point Number (A1-A6, A26-A37)						
Date Sampled	A1	A2	A3	A4	A5	A6
	Not In Use					
21.10.15		0.15				
21.10.15			0.02			
20.10.15				0.004		
20.10.15					0.01	
						Not In Use

Hydrogen Chloride Limit: 10mg/m3

Signed on behalf of Operator:

Dated: 26/01/2016

Form A1(Version date 30/04/01)

IQE Silicon Compounds Ltd

RELEASE INTO AIR

Release Summary for 12 months ending 31/12/15

Operator: IQE Silicon Compounds Ltd

Permit Number: BJ6968

Location: St. Mellons

Release Points A1 - A6

Release points shall be sampled on an annual basis

Release Point Number (A1-A6, A26-A37)							
		A1	A2	A3	A4	A5	A6
Substance g/hr	Date Sampled	--	21.10.15	21.10.15	20.10.15	20.10.15	--
Total Silanes (g/hr)		X	0.001304	0.006269	0.006114	0.000158	X
Arsine (g/hr)		X	0.00026	0.000198	0.0003	0.0008451	X
Phosphine (g/hr)		X	0.00446	0.003813	0.0126	0.023560	X
Diborane (g/hr)		X	0.004779	0.001175	0.001147	0.000050	X
Germane (g/hr)		X	X	X	0.0013	0.015260	X

Note 1: Columns to be annotated with appropriate Release Point Number. Use additional copies of the form as required.
X - denotes gas not used on the reactor
--' - denotes reactor shut down

Signed on behalf of Operator:

Dated: 26/01/2016

Form A2(Version date 30/04/01)

IQE Silicon Compounds Ltd

Environmental Releases From Energy Usage

Release Summary for 12 months ending 31/12/15

Operator: IQE Silicon Compounds Ltd Permit Number: BJ6968

Location: St. Mellons

Energy Source	Annual emissions to the environment, kg ¹			
	CO ₂ as C	SO ₂	Nox	Particulates
Electricity	265031	2894	1760	1181.6
Gas	1004	0	6	0.1
Total	266035	2894	1767	1181.6

Note 1: This data should be estimated using appropriate emission factor for gas and electricity, recorded below.

Gas: See attached form

Electricity: See attached form

Signed on behalf of the Operator:

Dated: 26/01/2016

Form E1 Attachment -

	Energy Used (kWh)	CO2 as C	SO2	NOx	Particulates
Electricity	2411346.2	265031.1	2893.6	1760.3	1181.6
Gas	19602.0	1003.9	0.0	6.4	0.1
Gas Therms	668.82				
Total	2430948.2	266034.96	2893.62	1766.64	1181.63

Gas Volume - kWh	Annual Units	Correction Factor	Adjusted Units (M3)	Calorific Value	kWh
	1757.95	1.02264	1797.75	39.253	19602

Energy Source	Energy Emission Factor				
	Unit	CO2 as C	SO2	NOx	Particulates
Electricity	Kg/kWh	0.10991	0.0012	0.00073	0.00049
Natural Gas	g/Therm	1501	0	9.5	0.108