IRISH WATER RESPONSE

Irish Water
Colvill House
24/26 Talbot Street
Dublin 1

Name of Facility: **Analog Devices International Unlimited Company Reg. No: P0224-04**

Location Address: **Analog Devices International Unlimited Company, Raheen Industrial Estate, Raheen, Limerick, V94RT99**

Consent granted subject to the consent conditions outlined below.	Yes
Consent granted without conditions.	N/A
Consent refused [Note 1].	N/A

Indicate either "Yes" or "No" to the request to include the condition(s) below in the licence as follows:

GENERAL CONSENT CONDITIONS	Condition to be Included *(Yes/No)*
1. Other than the trade effluent authorised to be discharged under this licence, the licensee shall at no time discharge or cause or permit to discharge into sewer trade effluent or any other matter unless authorised in writing by Irish Water.	Yes
2. Monitoring and analysis equipment shall be installed, operated and maintained as necessary, so that all monitoring, accurately reflects the emission/discharge.	Yes
3. The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence. (i) Sampling and analysis shall be undertaken by competent staff in accordance with documented operating procedures. (ii) Such procedures shall be subject to a programme of Analytical Quality Control using appropriate control standards with evaluation of test responses. (iii) Where any analysis is sub-contracted it shall be outsourced to a competent laboratory.	Yes
4. The licensee shall ensure that any trade effluent generated from canteen activities shall pass through appropriate grease removal equipment prior to discharge to sewer.	Yes
5. The licensee shall maintain and implement a detailed programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment or as otherwise approved in writing by IW.	Yes
6. A summary report of volumes of trade effluent and other matter discharged to the sewer along with monitoring and analysis data as specified in *Schedule B: Emission Limits to Sewer* and *Schedule C: Control & Monitoring*, of this licence shall be forwarded to both Irish Water and the Local Authority in a manner and timeframe as may be specified by Irish Water.	Yes
7. The licensee shall **prepare, maintain and implement** (text highlighted in black bold for new licence only) / maintain and implement (text highlighted in green bold for reviews) a Schedule of Environmental Objectives and Targets. The Schedule	No

shall, as a minimum, provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production and the prevention, reduction and minimisation of waste and shall include waste reduction targets, reduction and diversion of storm water runoff to sewer. The Schedule shall include time frames for the achievement of set targets and shall address a five-year period as a minimum. The schedule shall be reviewed annually and submitted to Irish Water as requested.	
8. The licensee shall pay to Irish Water such sum as may be determined from time to time, having regard to the variations in the cost of providing drainage and the variation in effluent reception and treatment costs. Payment is to be made on demand from Irish Water.	Yes
9. Silt Traps and Oil Separators The Licensee shall, within six months of date of grant of this licence, install and maintain silt traps and oil separators at the Facility: (i) Silt traps to ensure that all storm water discharges, other than from roofs, from the facility pass through a silt trap in advance of discharge; (ii) An oil separator on the storm water discharge from yard areas. The separator shall be a Class I Class II full retention/by-pass separator. <<EPA to select as appropriate>> (iii) The silt traps and separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).	Yes
10. The licensee shall conclude an end user agreement with Irish Water.	Yes
11. In the event of any incident which relates to discharges to sewer having taken place, the licensee shall notify Irish Water and the Local Authority, in the manner prescribed by Irish Water, as soon as practicable after such an incident.	Yes
12. No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in (i) a material change or increase in: ▪ the nature or quantity of any emission; ▪ the abatement/treatment or recovery systems; ▪ the range of processes to be carried out; ▪ the fuels, raw materials, intermediates, products or wastes generated, or (ii) any changes in: ▪ site management, infrastructure or control with adverse environmental significance; shall be carried out or commenced without prior notice to, and without the approval of, the Agency **and/or Irish Water <u>as appropriate</u>**.	Yes

ADDITIONAL GENERAL CONSENT CONDITIONS **In respect of discharges or emissions to sewers, in accordance with Section 99E of the Environmental Protection Agency Act 1992, as amended.** ***(Specify, if required)***

Limit Values for Process Effluent to Sewer

Schedule B: Emission Limits

Emission Point Reference No.: **SE1**

Emission to ***(sewer description):*** Irish Water Sewer located at Cloghkeating Avenue

Volume of Trade effluent emitted: Maximum in any one day: 2000 m^3
Maximum in any hour: 120 m^3

Parameter	Emission Limit Values	
pH	6-9 pH Units	
Temperature	35°C	
Toxicity	10 TU	
	Concentration (24 Hr. Composite Sample (mg/l)	**Daily Load (kg/day)**
COD - Cr	400	100
Suspended Solids	200	50
Sulphate	1,000	1,000
Fats, Oils & Greases	15	15
Fluoride	50	50
Ammonia – Total (as N)	20	20
Total Phosphorus (as P)	20	20
Total Heavy Metals	3	
Arsenic - unspecified	0.05	
Cadmium - unspecified	0.005	
Chromium - unspecified	0.1	
Copper - unspecified	0.1	
Lead - unspecified	0.05	
Zinc - unspecified	0.3	
Nickel - unspecified	0.1	
Mercury - unspecified	0.001	
Silver - unspecified	2	

Frequency of Monitoring Process Effluent to Sewer

Schedule C

Emission Point Reference No.: SE1

Parameter	Monitoring Frequency [Note 1]	Analysis Method/Technique
Flow Rate	Continuous	On-line flow meter with recorder
pH	Continuous	pH electrode/meter & recorder
Temperature	Daily	On-line temperature probe with recorder
COD - Cr	Bi-weekly	Standard Method
Suspended Solids	Monthly	Standard Method
Sulphate	Daily	Standard Method
Fats, Oils & Greases	Biannually	Standard Method
Sodium - unspecified	Monthly	Standard Method
Fluoride	Weekly	Standard Method
Total Phosphorus (as P)	Monthly	Standard Method
Ammonia – Total (as N)	Monthly	Standard Method
Total Heavy Metals	Weekly	Standard Method
Arsenic - unspecified	Biannually	Standard Method
Cadmium - unspecified	Biannually	Standard Method
Chromium - unspecified	Biannually	Standard Method
Copper - unspecified	Biannually	Standard Method
Lead - unspecified	Biannually	Standard Method
Zinc - unspecified	Biannually	Standard Method
Nickel - unspecified	Biannually	Standard Method
Mercury - unspecified	Biannually	Standard Method
Silver - unspecified	Biannually	Standard Method
Anionic surfactants/Detergents (MBAs)	Biannually	Standard Method
Respirometry	Annually	Standard Method
Toxicity [Note 2]	As Required	Standard Method
Priority Substances	As Required	Standard Method

Note 1: All samples excluding those for pH and temperature, shall be collected on a 24 hour flow proportional composite sampling basis.
Note 2 The number of toxic units (Tu) = 100/x hour EC/LC50 in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.

Control of Emissions to Sewer

Description of treatment: pH adjustment

Control Parameter	Monitoring	Key Equipment
Effluent (pH)	Continuous monitoring of effluent	pH probe and controller, dosing and transfer pump
Flow balancing	Balancing of effluent	Balance tank
Fats, Oils & Grease removal	FOG content effluent as a result of kitchen/canteen activities	
Visual Inspection (G3 yard sump only)	Prior to decanting	

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

Signed on behalf of

DocuSigned by:
Andrew Cartwright
EBDE6E0E3CDD42C...

Date 6/3/2020