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Reg No: P0020-03

29/Nov/2021

Dear Sir/Madam,

es only any other use. I refer to your correspondence dated 22/Jun/2021 relating to an application from Oled Material Manufacturing Limited, for Section 99 F Consent Request.

Please find attached Irish Water's consent to discharge to sewer subject to the consent conditions attached.

If you have any further queries please do not hesitate to contact us.

Yours sincerely

Wastewater Source Control & Licensing

Consent of convirience on purposes only, any other use.

IRISH WATER RESPONSE

Irish Water Colvill House 24/26 Talbot Street Dublin 1

Name of Facility: Oled Material Manufacturing Limited Ltd Reg. No: P0020-03

Location Address: Oled Material Manufacturing Limited, Shannon Free Zone, Shannon,

Clare, V14 FX09

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

| The sewer, to which this consent relates, is vested or | Yes |
|--|-----|
| controlled by Irish Water. | |
| Does the consent constitute a material change with respect to the associated waste water discharge authorisation? Note 2 (If 'Yes', you must attach to the consent a document describing the measures to be taken to bring about compliance with the waste water discharge authorisation including timeframes where appropriate. | No |

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. | Yes |
| (i |) Sampling and analysis shall be undertaken by competent staff in accordance with documented operating procedures. | |
| | i) Such procedures shall be subject to a programme of Analytical Quality Control using appropriate control standards with evaluation of test responses. | |
| (i | ii) Where any analysis is sub-contracted it shall be outsourced to a competent laboratory. | |

| 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 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. | No |
| 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 that of grant of this licence, install and maintain silt traps and oil separators at the Facility: Silt traps to ensure that all storm water discharges, other than from roofs, from the | No |
| (ii) | facility pass through a silt trap in advance of discharge; 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 appropriate="" as="" select="" to="">> The silt traps and separator shall be in accordance with LS. EN-858-2: 2003 (separator systems for light liquids).</epa> | |
| 10. | The licensee shall conclude an end user agreement with Irish Water. | Yes |
| | 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 |
| | No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in | Yes |
| (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 | |
| | any changes in: site management, infrastructure or control with adverse environmental significance; | |
| | ll be carried out or commenced without prior notice to, and without the approval of, Agency and/or Irish Water as appropriate. | |
| | No specified emission from the installation shall exceed the emission limit values set out in Schedule B: Emission Limits, of this licence. There shall be no other | Yes |
| 14. | emissions of environmental significance. The licensee shall undertake a desktop assessment and subsequent screening of trade effluent generated as a result of onsite activities for priority substances, priority hazardous substances and watchlist substances as listed in Tables 11,12 & | No |

13 of S.I. No. 272/2009 – EC Environmental Objectives (Surface Waters) Regulations 2009, as amended. A report on the assessment and screening shall be submitted to Irish Water within twelve months of the date of grant of this licence.

The licensee shall ensure that where substances are identified as being present in the trade effluent, measures are taken to reduce, eliminate or phase out their emission as required and each are assessed against risks posed to the biological processes at the receiving Irish Water wastewater treatment plant (D0033-01) and the sludge generated at the plant. The licensee shall also ensure that identified substances are assessed against potential risks to public health and the whole aquatic environment. The environmental assessment shall specifically assess resultant concentrations of substances in the receiving environment against their applicable environmental quality standards (EQS) and environmental objectives established by S.I. No. 272/2009.

Subsequent desktop assessments, screenings and reports shall be repeated at intervals commensurate with changes to the characteristics of the trade effluent as a result of changes to onsite processes/materials to be processed or as requested by Irish Water.

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| 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) | | |
|---|--|--|
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Limit Values for Process Effluent to Sewer

Schedule B: Emission Limits

Emission Point Reference No.: SE1

Emission to (sewer description): IW Sewer located a Shannon Free Zone West

Volume of Trade effluent emitted: Maximum in any one day: 35 m³

Maximum in any hour: 8 m³

| Parameter | Emission Limit Values | |
|--|---|----------------------------|
| рН | 6-9 pH Units 30°C | |
| Temperature | | |
| | Concentration (24 Hr. Composite Sample (mg/l) | Max Daily Load (kg/day) |
| BOD 5 days with inhibition (Carbonaceous BOD) | nutro 100 | 3.5 |
| COD - Cr | ection per re 200 | 7 |
| Suspended Solids | 100 | 3.5 |
| Fats, Oils & Greases | 100 | 3.5 |
| Total Phosphorus (as P) | 15 | 0.5 |
| (Carbonaceous BOD) COD - Cr Suspended Solids Fats, Oils & Greases Total Phosphorus (as P) Total Nitrogen Anionic Surfactants / | 30 | 1 |
| Anionic Surfactants / Detergents (MBAs) | 100 | 3.5 |

Frequency of Monitoring Process Effluent to Sewer

Schedule C

Emission Point Reference No.: SE1

Monitoring Point Reference No.: F26 (Chamber external to laboratory)

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|--|--|
| Flow Rate | Continuous | On-line flow meter with recorder |
| Нα | Continuous | pH electrode/meter & recorder |
| Temperature | Continuous | On-line temperature sensor with recorder |
| BOD, 5 days with inhibition (Carbonaceous BOD) | Quarterly | Standard Method |
| COD - Cr | Quarterly | Standard Method |
| Suspended Solids | Quarterly | Standard Method |
| Fats, Oils & Greases | Quarterly | Standard Method Standard Method |
| Total Phosphorus (as P) | Quarterly No. 101 | Standard Method |
| Total Nitrogen | Quarterly | Standard Method |
| Anionic Surfactants / Detergents (MBAs) | Quarterly | Standard Method |
| Metals & Organic Compounds Note 1 & 2 | As Requested As Requested As Requested | Standard Method |
| Respirometry | As Requested | Standard Method |
| Toxicity Note 3 | As Requested | Standard Method |

Note 1: Range of metals as per Water Quality (Dangerous Substances) Regulations, 2001 (S.I. No. 12 of 2001): arsenic, chromium, copper, cyanide, fluoride, lead, nickel, zinc.

Note 2: Relevant Priority substances, Priority Hazardous substances and Watchlist substances (as per relevant Tables set out S.I. No. 272/2009 - European Communities Environmental Objectives (Surface Waters) Regulations 2009 - 2019, as amended) in trade effluent generated as a result of onsite activities (The list of parameters to be analysed shall be based on the assessment/ screening as per consent Condition 14).

Note 3: 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:

| Control Parameter | Monitoring | Key Equipment |
|-------------------|------------|---------------|
| | | |
| | | |

Signed on behalf of

Andrew Cartwright --- EBDF8E0E3CDD42C...

Date

Date

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