

SECTION C
INFRASTRUCTURE & OPERATION

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SECTION C: INFRASTRUCTURE & OPERATION

Advice on completing this section is provided in the accompanying Guidance Note.

C.1 Operational Information Requirements (Not Applicable)

Provide a description of the plant, process and design capacity for the areas of the waste water works where discharges occur, to include a copy of such plans, drawings or maps, (site plans and location maps, process flow diagrams), and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the area of the waste water works discharging to the aquatic environment. Maps and drawings must be no larger than A3 size.

C.1.1 Storm Water Overflows

For each storm water overflow within the waste water works the following information shall be submitted:

- An assessment to determine compliance with the criteria for storm water overflows, as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency, and
- Identify whether any of the storm water overflows are to be decommissioned, and identify a date by which these overflows will cease, if applicable.

C.1.2 Pumping Stations

For each pump station operating within the waste water works, provide details of the following:

- Number of duty and standby pumps at each pump station;
- The measures taken in the event of power failure;
- Details of storage capacity at each pump station;
- Frequency and duration of activation of emergency overflow to receiving waters. Clarify the location where such discharges enter the receiving waters.

Attachment C.1 should contain supporting documentation with regard to the plant and process capacity, systems, storm water overflows, emergency overflows, etc., including flow diagrams of each with any relevant additional information. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, D.2, E.3 and F.2.

Attachment included	Yes	No
	X	

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C.2 Outfall Design and Construction

Provide details on the primary discharge point & secondary discharge points and storm overflows to include reference, location, design criteria and construction detail.

Attachment C.2 should contain any supporting documentation on the design and construction of any and all discharge outfalls, including stormwater overflows, from the waste water works.

Attachment included	Yes	No
		x

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C.1 OPERATIONAL INFORMATION REQUIREMENTS

(a) The WWTP serving The Chapelfield housing estate consists of a Proprietary treatment system. This provides primary and secondary treatment. The primary treatment is achieved by settlement. The secondary treatment is achieved by aeration of the settled waste water.

The design capacity of the WWTP is 50PE. It is known that the WWTP does not have sufficient capacity to treat any further development within the Agglomeration.

(b) The WWTP serving six houses located at the centre of Knockraha village is a septic tank. This provides primary and secondary treatment. The primary treatment is achieved by settlement. The secondary treatment is achieved by percolation of the settled waste water to a stone percolation area.

The design capacity of the WWTP is unknown. It is known that the WWTP does not have sufficient capacity to treat any further development within the Agglomeration.

C.1.1 Storm Water Overflows

There are no storm water overflows within the waste water works.

C.1.2 Pumping Stations

There are no pumping stations within the waste water works.

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CORK COUNTY COUNCIL

**LOCAL GOVERNMENT (WATER POLLUTION) ACTS 1977 AND
1990**

Licence to discharge Trade Effluent or Sewage Effluent to Waters

Reference TO / OBRI Construction Ltd.
No. In 35 Bellevue Rise
WP(W)8/06 Frankfield
Douglas CORK

The Council of the County of Cork, in exercise of the powers conferred on it by the Local Government (Water Pollution) Acts, 1977 and 1990, as amended, hereby GRANTS

a Licence. Reference Number WP(W)8/06

To **OBRI Construction Ltd.**
35 Bellevue Rise
Frankfield
Douglas CORK

To Discharge **treated domestic effluent from housing
development**

To (River) **groundwaters**

Located at **Gogganstown Knockraha Co Cork**

subject to the Conditions set out in the schedule attached hereto. It should be noted that a person shall not be entitled solely by reason of a licence to make, cause or permit a discharge to a sewer.

ENVIRONMENT
DEPARTMENT,
ROOM GF22,
CORK COUNTY COUNCIL,
INNISCARRA,
CO CORK.

Signed on behalf of the said Council,


PP STAFF OFFICER

Dated this 16th day of August 2006.

NOTE:

An appeal against a decision made by a Sanitary Authority under Section 16 and Section 17 of the Act of 1977, may be made to An Bord Pleanala under Section 20 of the Act, as inserted by Section 15 of the Local Government (Water Pollution) (Amendment) Act, 1990 within one month of the date of the Licence.

Appeals should be addressed to THE SECRETARY, AN BORD PLEANALA,
64 Marlborough Street, Dublin 1, and will be invalid unless accompanied by an additional fee of €126.00.

A request for an oral hearing shall be accompanied by an additional fee of €63.00.

A party to an appeal shall give to An Bord Pleanala any document, information or evidence in his possession or procurement, which An Bord Pleanala consider necessary for the purpose of determining the appeal.

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CORK COUNTY COUNCIL
Environment Dept.

Local Government Water Pollution Act 1977/1990
Licence under Section 4

W.P. (W) 08/06

**OBRI Construction Ltd.
Gogganstown
Knockraha
Co. Cork**

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Schedule

Wastewaters Discharges shall take place only as specified in the licence application W.P.(W) 08/06 as modified and/or controlled by this licence and subject to the requirements of law. Any changes in the nature or quantity of any emission shall require the licensee to notify the Licensing Authority and in the case of any material change for the licensee to request a review or obtain a new licence as may be determined by the Licensing Authority prior to any such change being made. The Licensing Authority shall interpret whether any change is material or not.

This licence supersedes all previous licences and correspondence issued in respect of the facility under the terms of the Local Government Water Pollution Act 1977 and 1990.

In the event of the licence being transferred to another party or company the applicant shall notify the Licensing Authority of this fact and shall also provide the details of the new licence holder prior to the transfer of the licence

The licensee shall decommission the treatment plant and connect to a centrally constructed treatment plant in a manner agreeable to Cork County Council upon the commissioning of a central facility.

1. WASTEWATER MANAGEMENT

1.1 The Licensee shall employ the best available techniques in the avoidance, minimisation, treatment and disposal of wastewaters produced on site.

1.2 Standard operating procedures shall be prepared in respect of wastewater control and treatment systems to assist personnel with responsibilities for the operations of such systems and plant. These procedures shall be retained on site for inspection and submitted to the Licensing Authority on request.

1.3 Operators with responsibilities in the effluent control and treatment area shall be identified to the Licensing Authority, contact telephone numbers supplied. Operators with responsibilities in the wastewaters control and treatment shall be trained adequately to enable them to execute their tasks in relation to pollution control. These records shall be submitted to the Licensing Authority prior to the commencement of discharges.

2. CONTAMINATED WASTE WATERS.

2.1 All contaminated wastewater arising from the operation of a residential development at Radharc Na Tuaithe, Gogganstown, Knockraha, Co. Cork, shall be collected and treated on site prior to discharge to percolation area. The specification of the treatment system is to be agreed with the Local Authority.

2.2 Contaminated wastewater shall comprise of those arising from the operation of the above named development only.

2.3 The plant shall not be operated without an ongoing maintenance contract which must be approved by the licensing authority

2.4 No interference with adjacent wetlands or vegetation shall take place without the prior approval of cork county council

2.5 All treated effluent shall be discharged to the percolation bed as outlined in the licence application and maps/drawings submitted with the application

The outflow pipe from the treatment unit shall be fitted with a sampling chamber post treatment at a location agreed with the Licensing Authority. The sampling chamber shall be constructed with minimum dimensions 500mm square by 400 mm deep. A flow meter shall be installed on the treated wastewater discharge line and the location of the flow meter shall be agreed with the Licensing Authority. The flow meter and sampling chamber shall be fully operational and in use at all times when wastewater is being discharged. The flow meter shall be of the continuous recording and integrating type.

Grab samples obtained from the sampling chamber shall be tested by the licensee for the parameters indicated in the following table and no such sample taken at the point of sampling shall exceed the following condition limits from the 1st December 2006:-The limits set are from the treatment plant to the percolation area and all sampling and monitoring will be evaluated at this point

2.6 The wastewater flow shall not exceed 30m³/day or 2 m³ per hour.

2.7 Grab samples obtained from these shall be tested by the licensee for the parameters indicated in the following table and no such sample taken at the point of sampling in the discharge line shall exceed the following condition limits.

pH	6.0 - 8.5
Temperature	25 ^o C
B.O.D.	20 mg/l
Total Suspended Solids	30 mg/l
Oils, fats, greases	5 mg/l
Detergents (anionic, cationic and nonionic)	5 mg/l
Total Phosphorus as Phosphorus	1 mg/l
Total Nitrogen as Nitrogen	15 mg/l
Faecal Coliforms	250 fc/100mls

The licensee shall install a UV system on the outlet line from the treatment plant to the percolation area

2.8 This licence does not permit the discharge of compounds listed (appendix 1) on Water Quality (Dangerous Substances Regulations) S.I. 12, 2001 from any activity arising on this site.

2.9 The frequency of testing for the above parameters shall be as follows:

Monthly for all parameters except Detergents and Fats Oil & Grease for the first twelve months from the date of issue of this licence. Quarterly thereafter, if the previous twelve months data demonstrates 100% compliance with condition 2.7 above.

Detergents to be analysed once per year and Fats Oil & Grease to be analysed twice per year.

The Licensing Authority reserves the right to alter the frequency of testing.

In compliance with Statutory Instrument S.I. 258 of 1998, the licensee shall report to the Licensing Authority on the reduction or elimination of detergents containing phosphorus compounds. This report shall be submitted by 1st December 2008.

2.10 All test methods used by the Licensee for the monitoring of the nature of the discharge shall be agreed with the Licensing Authority. All laboratory equipment used for wastewaters monitoring shall be calibrated in accordance with the manufacturers' recommendations and records of all calibrations shall be held by the Licensee for inspection by the Licensing Authority on request.

2.11 In the event of malfunction or breakdown of the wastewater treatment systems, or, any other incident on site which may be rise to water pollution, the Licensee shall immediately report the incident to the Licensing Authority by telephone or telefax and shall confirm the communication in writing within twenty four hours.

3. SURFACE AND STORM WATERS

3.1 All uncontaminated surface and storm waters shall be discharged as agreed with the Licensing Authority and discharged to the surface water drain as indicated on drawings which accompanied the application.

3.2 Grab samples shall be tested by the licensee upon request for the parameters indicated below table and no such sample taken at the point of sampling in the discharge lines shall exceed the following condition limits from the 31st January 2007:-

pH	6.0 – 8.0
Temperature	ambient
B.O.D.	5.0 mg/l
Total Suspended Solids	30 mg/l

4. STORAGE FACILITIES

4.1 All chemical storage tanks areas shall be rendered impervious to the materials stored therein. In addition, storage tank areas shall be bunded, either locally or remotely, to a volume of 110% of the largest tank within each individual bunded area.

4.2 The integrity and watertightness of all the bunded structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Licensing Authority. The results of these tests shall be certified by a Chartered Engineer.

5. SOLID WASTES

5.1 All wastes shall be recycled, recovered, or reused in so far as is practical.

5.2 All waste management options utilised shall be agreed in advance with the Licensing Authority. The volume of all wastes generated on site shall be recorded by the licensee. All such wastes shall be detailed as to source, route and type of recycling or disposal and classification under the European Waste Catalogue. This information shall be included in the annual summary report which must be returned to the Licensing Authority under the terms of this licence.

5.3 All treatment plant sludges shall be stabilised prior to disposal or alternative proposals may be submitted for disposal.

5.4 The licensee shall submit a report detailing all issues related to storage, handling and disposal of treatment plant sludge's. This report shall be approved by the licencing authority prior to disposal of any plant sludge's and no sludge may be removed off site for disposal until this approval has been granted.

5.5 The licensee shall submit the name of the licenced waste disposal contactors as part of 5.4 above and only licenced operators may be used on this regard.

6. MONITORING

6.1 The licensee shall grant immediate and unhindered access to the site and any portion of the wastewaters treatment plant to any authorised personnel representing any body having statutory responsibility for water pollution control, at all times to carry out such inspections, monitoring and investigations as the body deems necessary.

The Licensing Authority reserve the right to carry out monitoring works on the Licensee's site in relation to the nature or quantity of discharges from the licensee's premises. The Licensing Authority may install such equipment as may be necessary to collect this information at the Licensee's premises. The cost of this work will be borne by the Licensee.

6.2 The licensee shall keep records of all monitoring carried out and shall retain such records for a minimum period of five years. These records shall be available for inspection by authorised personnel representing any statutory body involved in water pollution at all reasonable times. The licensee shall submit to the Licensing Authority at quarterly intervals the results of all monitoring relating to the previous quarter, together with any other records relating to pollution control which may be required by the Licensing Authority. The format of these results shall be in accordance with the Licensing Authority template which will be provided to the licensee.

6.3 Any non-compliance with the terms of the licence shall be highlighted and the reason why this occurred shall be stated. The measures taken to ensure non-recurrence of the non compliance shall also be outlined. The percentage compliance with licence values for each parameter shall also be indicated.

6.4 Before January 31st of each calendar year, the Licensee shall submit a summary report of all monitoring carried out in the previous year. This report shall evaluate the operation of the facilities available on site to treat the wastewaters produced in the light of the results achieved in the previous year.

6.5 All monthly/quarterly and annual reports shall be signed by the Licensee's plant manager or approved agent designated by licensee.

6.6 The Licensee shall carry out a visual inspection of the wastewaters and surface water discharge points weekly and any abnormalities in water quality shall be noted. If it appears that the abnormalities may be occurring as a result of the Licensee's discharges then the Licensee shall immediately notify the Licensing Authority and initiate an investigation into the possible cause of the abnormalities.

7. RESPONSIBLE PERSON

7.1 The licensee shall ensure that a person or persons is/are available at all times to give relevant information on emissions to the Licensing Authority. The licensee shall identify to the Licensing Authority each such person and confirm in writing the contact details of such persons.

8. TREATMENT SYSTEM

8.1 The Licensee shall initiate an approved maintenance programme for all such plant in use in the treatment process or in pollution control. A copy of the contract documents of the company contracted to operate and maintain the treatment plant shall be forwarded to the local authority prior to the operation of the plant.

As a minimum the following conditions shall be performed

- Twice weekly inspection of the plant and a log maintained, verifying the operational conditions of the plant during the visit
- Alarm systems which relay to a responsible contact person should any plant mal function occur or a breakdown of plant equipment take place in the effluent system
- Register of maintenance work
- The plant shall be checked after every period of excessive rainfall in order to ensure that the system has not been affected by flooding.
- ✓ All pump sumps or other treatment plant chambers from which spillages might occur shall be fitted with high level liquid alarms. The alarm systems shall relay to a responsible contact person for the site. Containment areas around pump sumps shall be put in place and all spillages diverted to the effluent treatment plant for treatment
- ✓ Noise levels shall be controlled and in accordance with Environmental Protection Agency guidelines
- ✓ A duplicate air compressor shall be provided to supply air to treatment plant.
- ✓ The effluent shall be applied to the sand filter by means of siphons or by pumps if sufficient head is not available
- ✓ There shall be no nuisance odour outside the plant boundary. Odour abatement shall be managed through a structured monitoring and management of the operation of the wastewater treatment plant.
- ✓ The site shall be secured and fenced off from public access in accordance with best practices. The details are to be submitted and agreed with the Estates office, Northern Division prior to the commencement of any discharges from the site

A register shall be retained on site of all maintenance work and inspections carried out on such units and this information shall be made available to the Licensing Authority either on request or available for inspection on site.

9. CONTRIBUTIONS

9.1 The licensee shall pay to the Licensing Authority such annual contributions towards the cost of monitoring the discharge as the Licensing Authority considers necessary for the performance of its duties under this Act as follows:-

- (a) Not later than September 30th, 2006 the licensee shall pay to the Licensing Authority a contribution of not less than (€ 1250)
- (b) In subsequent years the licensee shall pay to the Licensing Authority an annual amount of not less than (€ 1250) updated in accordance with the Consumer Price Index from the date of the grant of this licence to the value pertaining at the time of payment of each annual contribution.
- (c) Notwithstanding the foregoing, the rate of contribution each year shall take account of the actual costs of monitoring as incurred by the Licensing Authority in the previous year and as estimated for the next year.

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C.2 Outfall Design and Constrction.

The primary discharge point is associated with the proprietary treatment plant located at the Chapelfield housing estate. The primary discharge point discharges to a percolation area.

The outfall is constructed from 100mm uPVC pipe and discharges directly into a percolation area,

The secondary discharge point is associated with a septic tank serving a small group of houses located at the centre of Knockraha village. The secondary discharge point discharges to a soakpit.

There is a secondary discharge point located at Gogganstown, Knockraha. The proprietary treatment system services the Radhard Na Tuaithe housing estate. The estate and waste water treatment system is under private ownership. The system is subject to licence under Section 16 of the 1977 Water Pollution Act amended 1990.

A copy of the discharge licence is enclosed for reference.

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