CORK COUNTY COUNCIL

Environment Dept.

Local Government Water Pollution Act 1977/1990

Licence under Section 4

Ruden Homes Ltd

Carrie House,

old Waterpark

Carrigaline

Co. Cork

Schedule

Effluent Discharges shall take place only as specified in the licence application W.P.(W) 08/03 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.

1. EFFLUENT MANAGEMENT

- 1.1 The Licensee shall employ the best available technology not entailing excessive cost in the avoidance, minimisation, treatment and disposal of effluent produced on site.
- 1.2 Comprehensive written operating instructions and procedures shall be prepared in respect of effluent control and treatment systems to assist personnel with responsibilities for the operations of such systems and plant. These procedures shall be made available to the Licensing Authority on request.

1.3 Employees with responsibilities in the effluent control and treatment area shall receive training adequate to enable them to execute their tasks in relation to pollution control.

2. CONTAMINATED WASTE WATERS.

- 2.1 All contaminated wastewater arising from the operation of a residential development at Grange, Kilumney, Co. Cork shall be treated on site.
- 2.2 Contaminated waste water shall comprise of domestic effluent only.
- 2.3 All treated effluent shall be pumped to the River Bride, at Kilumney, as indicated on drawings which accompanied the application. The effluent outflow pipe shall be fitted with a diffuser on the outlet, in order to maximize the mixing of effluent with the receiving river water. The effluent outflow pipe shall be fitted with a flow meter and composite sampler located upstream of the surface water discharge at locations agreed with the Licensing Authority. The flow meter shall be of the continuous recording and integrating type and composite sampler shall be flow proportionate. The sampler shall be operated so as to take samples at a frequency to be agreed with the Licensing Authority making up to a composite sample once every 24 hours. This sampling and monitoring system shall be fully operational and in use at all times during which effluent is being discharged.

This composite samples shall be collected at 12:00 noon each day or as otherwise agreed with the licensing authority. A composite sample for testing purposes shall be defined as any sample extracted from the sampling apparatus between 8.00 am and 12.00 noon.

2.4 The total volume of treated effluent shall not exceed 223 cubic metres/day or 25 cubic metres/hour.

2.5 Samples obtained in accordance with condition 2.3 above shall be tested by the licensee for the parameters indicated in the following table and no such taken at the point of sampling in the effluent discharge line shall exceed the following condition limits:-

pН	6.0 - 8.5
B.O.D.	10 mg/l
Total Suspended Solids	15 mg/l
Oils, fats and greases	1 mg/l
Total Nitrogen (as N)	15 mg/l
Total Phosphorus (as P)	0.5 mg/l
Detergents (MBAS)	1 mg/l

Dangerous substances. This licence does not permit the discharge of compounds listed (appendix 1) on Water Quality (Dangerous Substances Regulations) S.I. 120 2001 from any operation arising on this site.

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

Monthly for all parameters for the first twelve months from the date of issue of this licence. Six times a year thereafter, if the previous twelve months monitoring data demonstrates 100% compliance with the above limits. The Licensing Authority may review the frequency of sampling at any time.

2.6 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 effluent monitoring shall be calibrated in accordance with the manufacturers' recommendations and records of such calibrations shall be held by the Licensee for inspection by the Licensing Authority on request.

- 2.7 In the event of malfunction or breakdown of the effluent treatment, 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. The Licensee shall take all possible steps to ensure that discharges not in accordance with the provisions of this licence do not occur and shall consult with the Licensing Authority on the best practicable means of restoring the treatment process to its full operational capacity.
- 2.8 An assessment of the river up and down stream of the discharge point shall be conducted within twelve months of the date of issue of this licence. Forthnightly samples shall be taken between May to September inclusive, at sites agreed with the Licensing Authority for the following parameters, temperature, flowrate, dissolved oxygen, biochemical oxygen demand, suspended solids, or the phosphorus and ammonia. The Licensing Authority may alter the frequency of sampling at any time.

3 STORM WATER

3.1 All uncontaminated storm water shall be directed to the River Bride as indicated on drawing number which accompanied the application.

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 treatment plant sludges shall be stabilised and mechanically thickened prior to disposal off-site. Any liquid extracted shall be pumped back to the effluent treatment unit.
- 5.2 All solid waste which can be regarded as neither toxic nor dangerous including treatment plant sludges and general refuse shall be disposed to landfill or by other means as may be agreed with the Licensing Authority.
- 5.3 While awaiting disposal, all wastes and by products shall be collected and stored in designated areas protected against spillage and leachate run-off.
- 5.4 The licensee shall keep records of all wastes disposed of off-site and shall retain such records for a minimum period of ten years. These records shall be submitted to the Licensing Authority quarterly.
- 5. 5 Within two months of issue of this licence, the Licensee shall submit results of soil analysis carried out on the lands into which it is proposed to inject sludge (prior to any disposal taking place). These tests shall be undertaken by a competent independent technical body approved by Cork County Council. Nutrient levels and heavy metals concentrations shall be measured. The number of tests required shall be determined by the Licensing Authority (one per 5 hectares unless otherwise determined). A representative sample of the sludge shall be similarly tested and the results submitted to the Licensing Authority. These tests shall be repeated annually. The Testing Body shall recommend the maximum rate of spread of sludge. Upon receipt of these results, the Licensing Authority shall determine the maximum rate of spread of sludge allowable (as recommended by the Testing body unless otherwise determined).

The rate thus determined shall be based on the nutrient requirements of the soil and the prevention of runoff to waters, used for the disposal of sludge. If it appears to the Licensing Authority that the concentrations of certain substances is increasing to undesirable levels as a result of landspreading, then alternative arrangements for sludge disposal shall be agreed with the Licensing Authority. The Licensee shall indicate whether the designated lands will be

The preferred method of sludge disposal on land is soil injection. The Licensing Authority may insist that only this method be used.

A sludge holding tank of capacity to accommodate 12 days production of excess sludge shall be available for storage prior to landspreading.

The lands designated for landspreading shall be indicated on a map to a scale of not less than 1/10,560 and submitted to the Licensing Authority prior to any disposal taking place. The Licensee shall maintain a record of the quantities of sludge deposited and the approximate locations of applications on a grid map.

Landspreading shall not be carried out following periods of heavy rain or when the ground is saturated or frozen. Landspreading shall not be carried out within 10 metres of any watercourse, stream or river or in any circumstances when water pollution might occur.

6 MONITORING

- 6.1 The licensee shall grant immediate and unhindered access to the site and any portion of the effluent treatment plant, including sewers and pipes, 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.
- 6.2 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.

6.3 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 before the tenth day of each quarter period 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 include minimum, maximum and average values for each of the parameters tested. 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 shall also be outlined. The percentage compliance with licence values for each parameter shall also be indicated.

Before January 15th. 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 effluent produced in the light of the results achieved in the previous year. The report shall also outline the intentions of the Licensee with regard to the upgrading of treatment plant or operations should these results not fully comply with the terms of this licence.

All monthly and annual reports shall be signed by the Licensee's plant manager or other senior officer designated by him.

The Licensee shall carry out a visual inspection of the effluent 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.

8. TREATMENT PLANT

- 8.1 The Licensee shall identify those items of effluent treatment facility which are central to the proper operation of the effluent treatment system on site.
- 8.2 The Licensee shall initiate an approved maintenance programme for all such plant in use in the treatment process or in pollution control. The name of the company contracted to operate and maintain the treatment plant shall be forwarded to the Licensing Authority within one month of the issuing of this licence along with a copy of the contract. A register shall be kept of all maintenance work carried out on such timits and this information shall be made available to the Licensing Authority at the site, or, on request. The Licensee shall immediately notify the Licensing Authority of any change in either the contract agreements, or, any change of contracting company.
- 8.3 All pump sumps or other treatment plant chambers from which spillages might occur shall be fitted with high liquid level alarms. The alarm condition shall be signified by a signal on site and also, by modem, to the responsible person for the site. Duty and standby pumps and other duplicate plant equipment shall be interchanged weekly in order to allow each unit equal running time in duty mode. Control panels shall incorporate hours run meters for each individual unit. Containment areas around pump sumps shall be put in place and any spillages diverted to the effluent treatment plant.

An alternative energy power supply shall be installed to augment the main power source in the event of a power failure on site. Alternative arrangements may be agreed with the Licensing Authority.

8.4 Standby storage facility for the storage of untreated effluent shall be installed to accommodate untreated wastewater in the event of a malfunction, or, breakdown of the effluent treatment. Details of this facility shall be agreed with the Licensing Authority. Details of alternative arrangements made for the treatment of effluent, in event that effluent cannot be treated on site, are to be submitted for approval to the Licensing Authority within three months of the date of issue of this licence.

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., 2003 the licensee shall pay to the Licensing Authority a contribution of not less than (€ 2500)
- (b) In subsequent years the licensee shall pay to the Licensing Authority an annual amount of not less than (€ 2500) 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) Not withstanding 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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