



**OFFICE OF  
LICENSING &  
GUIDANCE**

**INSPECTORS REPORT ON A LICENCE APPLICATION**

**To:** DIRECTORS

**From:** SEÁN O DONOGHUE - LICENSING UNIT

**Date:** 28/3/05

**RE:** APPLICATION FOR AN IPPC LICENCE FROM GAIRDINI TRADING AS MUNSTER JOINERY LIMITED, LICENCE REGISTER 639

| Application Details                              |   |
|--|---|
| Class of activity:                               | 12.2.2: The use of coating materials in processes with a capacity to use at least 10 tonnes per year of organic solvents. |
| License application received:                    | 30/04/02  |
| Notices under Article 11(2)(b)(ii) issued:       | 21/06/02, 06/01/03, 30/06/03  |
| Information under Article 11(2)(b)(ii) received: | 11/11/02, 30/05/03, 02/10/03  |
| Notices under Article 17 issued:                 | 28/11/03  |
| Article 17 compliance:                           | 21/02/05  |
| Submissions received:                            | One (Dúchas, The Heritage Council)  |
| Site visits:                                     | 21/05/02, 22/10/03  |

**Company**

Gairdini Ltd. (trading as Munster Joinery) is a family run business founded in 1973 and based at Lacka Cross, Ballydesmond, Co. Cork. It is Ireland's largest energy saving window and door manufacturer. A range of hardwood, softwood, uPVC, Steel and Aluminium doors and windows are manufactured at the Ballydesmond facility.

The process involves the following steps:

- (i) cutting of raw materials to the size and shape required (wooden planks, aluminium and uPVC profiles, steel panels, and sheets of glass). The hardwood is dried on site in a kiln.
- (ii) These materials are then assembled into doors and windows.
- (iii) Surface treatment of assembled hardwood product may take place in the teakstain spray booth, and assembled softwood product is impregnated with preservative by vacuum treatment in the Protim 418V Prevac system. Glass panels and fittings such as locks, handles etc. are added.
- (iv) The completed products are dispatched.

Hours of operation are 24 hours, five days a week, although only the extrusion of PVC and hardwood drying take place outside the hours of 8 a.m. to 6 p.m.

## **Use of Resources**

### **Fuel**

Sawdust fuels the main boiler on site, with diesel used as backup. Annual usage of sawdust is estimated at approximately 3,500 tonnes, which is well below the guide value of 50,000 at which a Class 11.1 licence would be required.

### **Electricity**

Annual usage of electricity in 2003 was  $19.3 \times 10^6$  kWh.

### **Water**

Water is extracted from an on-site well, and annual usage is estimated at 35,000 m<sup>3</sup>.

### **Materials**

Some List I and II substances (under The Dangerous Substances Directive and the Groundwater Directive) are found in paint, adhesive, and thinners used on site. Substances with Risk Phrases R51/53 are white spirits and Protim wood preservative.

Condition 7 requires the licensee to assess the efficiency of resource and energy usage and to identify and implement improvement measures.

## **IPPC Directive**

This installation does not fall within the scope of Annex I of Council Directive 96/61/EC concerning integrated pollution prevention and control.

It should be noted that, as only assembled product is passed through the Prevac system, the maximum mass throughput is not sufficient to classify the activity under class 8.3 of Schedule 1 of the PoE Act 2003. The preservative in use is organic solvent based, and the annual solvent usage is such that the activity falls under class 12.2.2 of this schedule.

## **S.I. 543 of 2002-Solvents Regulations**

The annual solvent usage does not exceed the threshold specified in Annex IIA of 1999/13/EC (the Solvents Directive), and so does not fall within the scope of this directive.

## **European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (SI 476 of 2000)**

In Question 11 of the IPC licence application form the applicant has given details of the assessment of on-site storage with the requirements of SI 476 of 2000. The assessment concludes that the activity is classified as not requiring compliance with Articles 6,7 and 9 of Seveso II.

## **Proposed Determination**

### **Air:**

The main boiler on site is fuelled by sawdust, which is extracted by vacuum from workstations in the plant and delivered to a central hopper, from where it is fed to the boiler. There is also a backup boiler, which runs on diesel, and a secondary sawdust boiler, which may also be run on diesel as backup. The heat required to run the kiln is supplied by these boilers.

The air exhaust from the sawdust collection system is fitted with cyclones and a needle felt filter to remove particulate. The maximum particulate emission concentration from the exhaust stream is 15 mg/Nm<sup>3</sup>. The RD requires daily visual inspection of the filter, and spare filters to be held on site, and an emission limit value for particulates of 20 mg/m<sup>3</sup> has been set in the RD.

Monitoring of the main boiler exhaust indicates a particulate emission concentration over 600 mg/Nm<sup>3</sup>, far in excess of the TA Luft guideline value of 20 mg/Nm<sup>3</sup>. Modelling indicates that exceedances of the 24 hour Air Quality Standard for PM<sub>10</sub> will occur as a result of the emission. However the applicant is in the process of installing a new boiler with electrostatic filters which will ensure that the TA Luft guideline value can be achieved in the emission, and an ELV of 20 mg/Nm<sup>3</sup> has been set in the RD. Dispersion modelling indicates that no exceedances of the relevant AQS will occur at this emission concentration. This installation is expected to be completed in quarter 3 of this year.

The mass emissions from the teak stain spray booth are such that the emission is classified as minor.

### **Water:**

There are two emission streams to waters on site.

Water used to cool the extruded uPVC profiles is discharged to the River Blackwater via surface water drain. The company have installed a filtration system to allow extended reuse of the cooling water. The filter is automatically backwashed, with the washings mixed with the foul effluent from the on-site sewage treatment plant prior to discharge via a v notch weir and composite sampler.

Glass panes are washed with a caustic based detergent which is also discharged to the Blackwater via surface drain. The applicant is required to divert this stream within three months of date of grant of licence such that it discharges via the v notch weir/composite sampler.

Sewage is treated on site in an extended aeration treatment plant with associated v notch weir and composite sampler. The RD allows for only one effluent discharge point and sets emission limit values and monitoring requirements on the combined discharge.

The emission volume (0.0044 m<sup>3</sup>/s) is negligible in comparison to the dry weather flow (15m<sup>3</sup>/s) in the River, and Biological quality monitoring of the River Blackwater indicates no deterioration due to the discharge, with Q4 ratings achieved upstream and downstream of the discharge since 1990. It is therefore considered that the effluent as licensed will not have a significant impact on the River.

### **Surface Water:**

Uncontaminated surface water on site flows via storm drains to the River Blackwater. There are no particular threats to the quality of this water, and a weekly visual check is adequate.

### **Groundwater:**

There are no emissions to ground on the site, and no historical incidents which would indicate any contamination of groundwater. Fuel and chemical storage practices on site are good, and there appears to be little threat to groundwater quality on site. A once off survey of groundwater on site is required by Condition 6 of the RD to assess groundwater quality.

### **Waste:**

Hazardous wastes generated on site consist of hydraulic and lubrication oils which are sent off site for recovery. Non hazardous wastes are either reused on site (small uPVC offcuts), recycled off site (aluminium, large PVC and glass offcuts, cardboard and paper, and metal barrels), sold to the public as firewood (wooden offcuts), or disposed of to landfill by permitted contractors (treatment plant sludge, domestic waste, plastic and steel door cut-outs). Sawdust is used as fuel in the on site boiler, but is exempt from the Waste Incineration Directive by virtue of Article 2.

All waste contractors are appropriately licensed or permitted.

### **Noise:**

A survey conducted by the applicant showed that nighttime noise levels at three nearby noise sensitive locations exceed the guide values. However, on the basis of site visits, the dominant noise source at these locations is the nearby River Blackwater, whereas on-site noise sources are not

audible (only the kiln operates at nighttime). The RD requires 55/45 dB<sub>A</sub> noise limits at daytime/nighttime respectively to apply at noise sensitive locations.

**Storage:**

All fuel tanks and vessels, softwood preservative and teak stain tanks are bunded. Additional chemicals are stored in labelled drums in a chemical store providing containment and suitable spill kits. The RD contains conditions relating to testing of tank and drum storage areas, bunds and bund volume requirements.

**Firewater Retention:**

The company stores up to 15 tonnes of substances toxic to aquatic organisms on site, and so is required to conduct a risk assessment according to Appendix A of the relevant EPA guidance note. Condition 3 of the RD requires this assessment to be conducted in accordance with this guidance note, and a suitable risk management programme to be implemented on the basis of the findings.

**Submissions:**

Ms Rita Gorman of Dúchas expressed concerns that chemical effluent could enter the River Blackwater via surface water drains and requests that appropriate conditions are imposed by the EPA to prevent this happening.

Comment:

As outlined above, the applicant is required to divert washwater from surface drains to the foul effluent discharge line within three months of date of grant of licence. The RD requires that this effluent is monitored and sampled and has set emission limit values on a range of effluent parameters. Chemical storage practices and bunding on site are good and, as outlined above, biological quality monitoring of the River Blackwater indicates no significant impact on water quality.

**Recommendations:**

That the board approve the proposed determination as submitted.

Signed

---

Seán O Donoghue,  
Inspector,  
Office of Licensing & Guidance.

Procedural Note

In the event that no objections are received to the Proposed Determination of the application, the final licence will issue from the division in accordance with Section 87(4) of the Environmental Protection Agency Acts, 1992 and 2003 as soon as may be.