

INSPECTORS REPORT
WASTE LICENCE REGISTER NUMBER 83-1

(1) Summary:

Name of Applicant	Dempsey Drums Ltd.
Facility Name (s)	Dempsey Drums Ltd.
Facility Address	Lower Oriel Street, North Wall, Dublin 1
Description of Principal Activity	Reconditioning of steel and plastic drums and intermediate bulk containers
Quantity of waste (tpa)	2,656 tonnes (1997) - projected increase over 5 years to 9,200 tpa.
Environmental Impact Statement Required	No.
Number of Submissions Received	One
INSPECTOR'S RECOMMENDATION	The proposed decision as submitted to the Board be approved

Notices	Issue Date(s)	Reminder(s)	Response Date(s)
Article 14 (2) (b) (i)	None		
Article 14 (2) (b) (ii)	17/2/99 27/5/99	None	8/3/99 28/5/99
Article 14 (2) (a)	4/6/99		
Article 16	6/7/99		12/8/99

DESCRIPTION OF THE ACTIVITY:

The facility accepts used steel and plastic drums and intermediate bulk containers (IBC's) of various sizes. Any residues left in the bottom of the containers are drained off and removed to other facilities for treatment. The containers themselves are washed inside and out, refurbished, stored and sold on for reuse. Some containers cannot be reconditioned and the metal or plastic is recycled or disposed of.

The company is part of the Green Sunrise Group.

The company applied for grant aid in 1997 and was awarded £186,000 by the Department of the Environment and Local Government to be used in developing and upgrading the facility's waste processing capacity.

Applicant Address	Lower Oriel Street, North Wall, Dublin 1
Planning Permission status and date granted (if appropriate)	1. Originally granted 15/10/92. 2. Further planning application submitted 31/8/98.
Planning Authority	Dublin Corporation
Is the facility an existing facility:	No
Prescribed date for application:	Prior to 20 th May 1998
Date Application received:	24 November 1998
Confidential Information Submitted	Yes - covering letter outlining the company's turnover and profit for the years 1996-98 and a financial statement for the year ended 30 June 1997 were considered by the Board to be confidential. Other material was not considered to be confidential and was returned to the applicant.
Location of Planning Documents in Application	Attachment B3

SITE VISITS:

DATE	PURPOSE	PERSONNEL	OBSERVATIONS
21/12/98	Check site notice and site visit	B. Meaney	Construction work ongoing.
20/7/99	Site visit and update of ongoing developments in waste processing capacity.	B. Meaney & G. O'Connell (student on placement with EPA)	New and ongoing developments noted.

(2) Class/Classes of Activity

The class(es) of activities for which the applicant has applied are marked below. The principal activity is indicated by (P).

Waste Management Act, 1996		
THIRD SCHEDULE Waste Disposal Activities	FOURTH SCHEDULE Waste Recovery Activities	
1. Deposit on, in or under land.	1. Solvent reclamation or regeneration.	
2. Land treatment, including biodegradation of liquid or sludge discards in soils.	2. Recycling or reclamation of organic substances which are not used as solvents.	
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.	3. Recycling or reclamation of metals and metal compounds.	P
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	4. Recycling or reclamation of other inorganic materials.	✓
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.	5. Regeneration of acids or bases.	
6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in this Schedule.	6. Recovery of components used for pollution abatement.	
7. Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in this Schedule.	7. Recovery of components from catalysts.	
8. Incineration on land or at sea.	8. Oil re-refining or other re-uses of oil.	
9. Permanent storage, including emplacement of containers in a mine.	9. Use of any waste principally as a fuel or other means to generate energy.	
10. Release of waste into a water body (including a seabed insertion).	10. Spreading of any waste on land with a consequential benefit for an agricultural activity or ecological system, including composting and other biological transformation processes.	
11. Blending or mixture prior to submission to any activity referred to in this Schedule.	11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	
12. Repackaging prior to submission to any activity referred to in this Schedule.	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	
13. Storage prior to submission to any activity referred to in this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.	✓

Class Description:

The applicant described the classes of activity applied for as follows:

Fourth Schedule, Class 3:

“Dempsey Drums Ltd recondition and recycle empty steel & plastic drums and IBC’s. DDL also buy and sell new steel and plastics drums.”

Fourth Schedule, Class 4:

“DDL have recently been awarded a hazardous waste grant from the Department of the Environment and Local Government. The grant will be used to upgrade existing facilities and purchase additional recycling equipment. This will enable a wider range of empty industrial packaging to be reconditioned or recycled including steel drums, metal buckets, plastic drums and large bulk containers (i.e. IBC’s).”

Fourth Schedule, Class 13 and Third Schedule, Class 13:

“As part of the reconditioning/recycling process, DDL generate drum residues and drum washing effluent. Waste liquids are stored in two on site bulk bunded holding tanks. When the tanks are full, they are emptied by waste disposal contractors and taken off site for recycling or disposal. Waste solvents and/or solids/sludge’s are decanted into steel drums and returned to suppliers or stored in bunded shed awaiting disposal by waste contractors. Waste shotblast and dry paint powder from drum shotblasting and spray painting operations are also generated. This waste is stored on site in steel drums, prior to disposal under permit for deep burial by Fingal County Council.”

Activities proposed to be authorised by the licence shall be restricted to those described below.

Fourth Schedule

Class 3. This activity refers to the recovery of metal drums and containers.

Class 4. This activity refers to the recovery of other drums and containers.

Class 13. This activity is limited to the storage of waste at the facility prior to on site recovery or consignment to off-site recovery facilities.

Third Schedule

Class 13. This activity is limited to the storage of non-hazardous waste at the facility prior to consignment to off-site disposal facilities.

(3) Site Location

A location plan showing the site to which the application relates is provided in Appendix 1. The appendix also contains a drawing showing the layout of the facility.

The facility is located on a 0.4 hectare site at the end of Lower Oriel Street, off Seville Place, North Wall, Dublin 1. The site is bounded to the south and south-west by the residential Lower Oriel Street, to the north-west by the Dublin-Belfast railway bridge and Connolly Station and to the north-east by Spencer Dock. Residential housing is located on Lower Oriel Street immediately adjacent to the site boundary.

(4) Waste Types and Quantities

The total quantities and types of wastes accepted by the facility are shown below.

YEAR	NON-HAZARDOUS WASTE (tpa)	HAZARDOUS WASTE (tpa)	TOTAL QUANTITY OF WASTE (tpa)
1997	-	2656	2656
1998	-	2,459*	2,459
1999	-	3,074*	3,074
2000	-	3,842*	3,842
2001	-	4,803*	4,803
2002	-	9,192*	9,192

* Projected quantities (Attachment B.8). The reported figure for 1998 is 2,724 tonnes (from the National Waste Database 1998, not yet published).

All quantities refer to containers (drums, IBC's and other containers) accepted at the facility. Even though some may not contain dangerous substances, all have been classified by the applicant as hazardous waste.

Condition 5.2 limits waste acceptance to an annual maximum of 10,000 tonnes.

(5) Site Design

- **Infrastructure;**

The site is surrounded by a 3.6m high concrete wall. The rear of the site backs onto the main Dublin-Belfast railway. The sole entrance to the site is at its south end at Lower Oriel Street.

The entire site is surfaced with concrete and all surface water is drained via one of three interceptors to sewer or to soakaway.

The facility does not have a weighbridge. Incoming loads are recorded by number of drums. Weights are calculated according to a standard weight per drum. Condition 3.11(f) requires that both tonnage and number of drums be recorded.

There are two principal buildings on site. Both of these are used for the processing of waste containers. In addition, there are six enclosed archways beneath the railway bridge at the north end of the site. One is to be used for the processing of intermediate bulk containers (IBC's). The remaining five are used as a maintenance store and for the storage of reconditioned drums and other products which are sold by the company.

Condition 4.10 requires that access by the emergency services to all parts of the facility be maintained at all times.

Members of the public have no access to the site for the deposition of waste.

(6) Site Operation/Management

• Operation

The facility accepts steel and plastic drums, containers and intermediate bulk containers (IBC's). These containers are *reconditioned*, *recycled* or *disposed of*, as appropriate. Reconditioning means the cleaning, washing and repainting of drums for sale and reuse. Recycling means the crushing or shredding of drums and subsequent removal of the plastic or metal for recovery. Disposal refers to the shredding of plastic containers and subsequent removal of the plastic for disposal (where recycling of the plastic is not possible).

Removal of residues

The first step in each case is the draining of any residues contained in the drums. Residues are drained and transferred to dedicated storage - oil is stored in oil tanks for removal by waste oil recycling companies and solvents and other liquids are stored in drums for removal by waste contractors. The residues are handled as hazardous waste. Condition 5.11 requires that a procedure be submitted to ensure that incompatible substances are not mixed during the draining of residues. Conditions 4.7, 5.10 and 5.12 set out the conditions for storage of residues.

Reconditioning

Containers are washed, inside and out. Steel and plastic drums are subjected to a series of washing stages including hot oil, acid and caustic washes and rinses. The process is continuous with drums moving on a conveyor through the main washing machine. Steel drums are subject to further processes - reforming (removal of dents etc.), shot blasting (paint removal), leak testing, repainting, drying and labelling. IBC's are washed and leak tested on a dedicated line. Reconditioned containers are stored pending removal off-site for reuse.

Recycling or disposal

Steel drums which are unsuitable for reconditioning (because of damage, contamination or the presence of “difficult to wash” substances) are recycled. After being washed, steel drums are crushed and shipped to metal recycling facilities. Plastic containers are washed, granulated and currently disposed of to landfill. The recovery of this shredded plastic is required to be investigated as part of the EMP.

- **Waste Acceptance Procedures**

Upon arrival at the facility, containers are segregated into those for reconditioning and those unsuitable for reconditioning. Where a container held a substance listed on a “stop list” of hazardous substances which is maintained by the company, that container is required to have been decontaminated by the customer and labelled as such prior to delivery to the facility. Condition 5.6 refers to the stop list. To quote the application: “Dempsey Drums in conjunction with other European drum and IBC recycling plants use the stop list of Acutely Hazardous Chemicals, issued by Blagden Packaging, Europe’s largest drum recycling company.”

- **Waste Handling**

Containers awaiting processing are stored outdoors in storage areas to be designated under Condition 5.10.

Residues are stored and handled as described above.

- **Nuisance Control**

Condition 6 requires that operation does not cause a nuisance.

- **Hours of Operation**

Monday to Saturday, 0800-1900.

(7) Decommissioning and Aftercare

Condition 8 requires the preparation of a Decommissioning and Aftercare Plan for the facility.

(8) Emissions to Air

Air emissions arise at three principal process emission points - drum washing (A1), drum painting (A2) and paint drying (A3).

A1: Drum washer stack

According to monitoring results submitted with the application, none of the emissions at this point exceed TA Luft emission limit values. The environmental impact of the emission was assessed using the Screen 2 model. Ground level concentrations for individual compounds were found to be within 1/40th of the relevant 8-hour OEL (occupational exposure limits) and Danish C-values. The model was run at the reported total VOC loading of 0.9kg/hour. It is proposed to limit the emission to 1 kg/hour of total organic carbon (TOC) (as C). This equates to a maximum GLC of 0.47mg/m³ at a distance of 32m from the emission point.

A2 and A3: Drum painting and drying

The following are the maximum ground level concentrations for total VOC (as C) as determined by the Screen 2 model. The model was run using the reported emission values for total VOC. The distances at which the maximum ground level concentrations are occurring are typically beyond the facility boundary.

A2: 0.02 mg/m³ at a discharge rate of 0.045kg/hour

A3: 0.36 mg/m³ at a discharge rate of 0.625 kg/hour

These GLC's are acceptable for all of the major individual VOC's emitted in terms of 1/40th of the relevant 8-hour OEL. However, for xylene, at emission point A3, the modelled value of 0.2mg/m³ is twice the Danish C-value of 0.1mg/m³.

The drum painting operation comes under Annex IIA(I)(8) of Council Directive 1999/13/EC¹ for annual solvent usage greater than 5 tonnes. The Directive requires compliance for existing facilities by 31/10/07. Emission limit values from that date have been set accordingly. In addition, fugitive emissions must be limited to 20% of solvent input. Up until that date, emission limits have been set according to the reported emission values and the assessment of their environmental impact. The proposed emission limit values of 0.1 kg/hour and 0.3 kg/hour of total organic carbon (TOC) (as C) for A2 and A3 respectively relate to GLC's of 0.036 mg/m³ and 0.17 mg/m³. These GLC's are acceptable for all individual VOC compounds emitted in terms of 1/40th of the relevant 8-hour OEL. Halving the reported VOC emission at A3 to a limit of 0.3kg/h ensures that the modelled GLC for xylene (0.097mg/m³) (using the Screen 2 model) does not exceed the Danish C-value for xylene (0.1mg/m³).

Other emissions and fugitive emissions

¹ Council Directive of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations.

Emissions to air from two washing processes (container recycling and IBC washing) do not have discreet emission points. Fugitive emissions from these activities are to be evaluated under Condition 7.5.5.

Dust

Shot blasting is carried out by automated machinery in an adjacent building to the main factory. Condition 9.7 allows for dust deposition monitoring to be carried as required by the Agency.

(9) Emissions to Groundwater

The site is fully surfaced with concrete and all surface run-off drains to one of three interceptors. Two of these interceptors drain to foul sewer and one drains to a soakaway.

A single chamber interceptor discharges to a soakaway at the north end of the site. This interceptor serves both the north end of the facility and also the railway line located on the bridge above the facility. The discharge pipe from the interceptor has been traced by a CCTV survey to the other side of the railway bridge. The location of the soakaway was not pinpointed either by the CCTV or dye tracer surveys. Condition 7.6 requires that no contaminants be permitted to discharge to ground or groundwater via the soakaway. Condition 7.8.2 requires that this discharge be visually inspected at weekly intervals.

Condition 9.9 of the PD requires the licensee to submit proposals to investigate the extent of contamination, if any, of groundwater beneath the facility. The report on the investigation is required to include a risk assessment, recommendations and a programme for implementation.

(10) Noise Emissions

There have been no noise complaints about the facility. A noise survey showed the noise levels at the nearest house to be 46dBA(Leq). It is stated that the adjacent railway is a more dominant noise source. The facility does not operate in the evenings or overnight and truck traffic is restricted to mornings where possible. Conditions 7.4, 9.1 and 9.8 relate to noise and the monitoring of noise.

(11) Emissions to Sewer

There are no trade effluent emissions. Consent for a discharge to sewer under Section 52 of the Waste Management Act 1996 is not required (see Dublin Corporation correspondence dated 13/7/99).

(12) Emissions to Surface Water

There are no direct emissions to surface water.

(13) Other Significant Environmental Impacts of the Development

None.

(14) Waste Management, Air Quality and Water Quality Plans

A **waste management plan** for the Dublin Region has been adopted by the four Dublin local authorities. The facility is not specifically addressed in the plan. The business underlying the facility is not confined to the functional areas of the four Dublin local authorities.

Air quality plans - a draft Dublin-wide plan was published in July 1999 and submitted for public consultation. The final document has not yet been published.

Water quality plans - not relevant, no surface water discharge.

(15) Fit and Proper Persons

Convictions under the Waste Management Act, 1996: None.

Technical knowledge or qualifications: Satisfactory.

Financial commitments or liabilities: A covering letter outlining the company's turnover and profit for the years 1996-98 and a financial statement for the year ended 30 June 1997 were submitted. Condition 11.2.2 requires the applicant to make a proposal for financial provision for the agreement of the Agency.

(16) Submissions/Complaints

Appendix 2 contains details of the submission received relating to the application. The date received and the details of the individual, department, group or organisation making the submission are provided.

An overview of the submission received in relation to the waste licence application is provided. The following is a summary of the issues raised in the submission and how these issues are dealt with in the proposed decision.

Submission: Dublin Corporation made a submission dated 30 June 1999.

Subject to the inclusion of a number of conditions, the submission made no objection to the operation of the facility. Many of the conditions proposed in the submission are included in the PD. See the table below for details of the submission items.

Submission item	Response
1	Conditions 6 and 7 of the PD control nuisance and emissions respectively.
2.1	Condition 4.10 of the PD requires that access to the facility is possible at all times.
2.2	Conditions 5.11 and 5.12 of the PD control the storage and mixing of incompatible wastes.
3.1	Condition 5.1 of the PD controls waste acceptance.
3.2	Condition 5.10 of the PD requires that waste be stored only in designated areas.
4.1, 4.2, 4.3	Condition 4.7 of the PD controls bunding.
4.4	Condition 10.3 of the PD requires spill kits to be maintained.
4.5	See Conditions 4.7.4 on bunds, 4.8 on underground pipes and tanks and 5.13 on the integrity of containers accepted or handled at the facility.
5	Item 5 of the submission specifies the desirable attributes in the “design of drums/containers for storing inflammable/hazardous substances”. Bunding and storage of waste is dealt with under item 4 of the submission. Labelling of incoming waste is required by Condition 5.5. Condition 5.13 deals with the integrity of containers accepted or handled at the facility. The movement of drums of waste from the facility is not controlled by the PD.
6	Condition 10 deals with contingency arrangements. Condition 5.12 will ensure that, during storage, no mixing of incompatible

Submission item	Response
	substances shall take place.
7	Conditions 6.1 and 6.4 of the PD deal with odours and odour monitoring.
8	This item deals with the issue of dust. Condition 9.7 allows the Agency to require the licensee to monitor for dust deposition. Dust was not observed during site visits as being a problem associated with the movement of vehicles and handling of incoming containers at the facility.
9	Condition 6 deals with general litter and nuisance control.
10	This item deals with record keeping. With the exception of reconditioned drums, those records specified in the submission are required to be maintained under Condition 3.11 of the PD.

Complaints

There have been no complaints to the EPA with respect to the facility. Historical odour complaints have been resolved.

Signed: _____

Dated:

Name: Brian Meaney

APPENDIX 1
LOCATION PLAN and SITE LAYOUT DRAWING

APPENDIX 2

LIST OF PERSONS MAKING SUBMISSIONS

Padraic Gorby, Environmental Health Officer

Dublin Corporation

Environment and Cultural Department

Civic Offices

Wood Quay

Dublin 8