

## INSPECTORS REPORT

**WASTE LICENCE REGISTER NUMBER**      **113-1**

**APPLICANT:**      **KMK Metals Recycling Ltd**, Cappincur Industrial Estate, Danigean Road, Tullamore, County Offaly.

**RECOMMENDATION:**      That a licence subject to conditions be granted.

### 1. Introduction

KMK Metals Recycling Ltd has applied to continue to operate their waste transfer station for non-hazardous and hazardous waste. The business of KMK Metals Recycling Ltd is that of recycling metallic wastes. The facility has been in operation under permit from Offaly County Council since 1985. The total waste intake is in the region of 1000 tonnes per annum. Hazardous waste is less than 1% of the waste stream and the company envisages expanding this line of business.

The facility is situated in the Cappincur Industrial Estate approximately 2km east of Tullamore on the R402 (Daingean Road) Appendix 1. Other businesses in the Cappincur Industrial Estate include a steel fabrication facility, a car dismantler, and a metal scrap merchant and agricultural machinery sales yard. There are residential houses along the Daingean Road and agricultural pastureland surrounds the industrial estate. The facility consists of a fully bunded warehouse of approximately 1000m<sup>2</sup>, a forecourt and a facility office. All waste recovery activities are carried out indoors (except for some storage of metal machinery for recovery).

The applicant has applied for the following recovery classes as specified in the Fourth Schedule of the Waste Management Act, 1996; Classes 3, 4, 6, 7, 11, 12 and 13. The principal activity is Class 13, which relates to the storage of waste at the facility prior to transport off site for recovery or recycling.

The current permit under the European Communities (Waste) Regulations 1979 and the European Communities (Toxic and Dangerous Waste) Regulations, 1982 was issued to KMK Recycling Ltd by Offaly County Council on the 25/9/97 [Reference Number T.W.6 (R.4)]. Planning permission was granted on the 16/9/97 (PL2/97/393).

Appendix 1 contains a site location map and a plan showing the layout of the facility.

<b>Quantity of waste (tpa)</b>	Currently approximately 1000 tonnes per annum.
<b>Environmental Impact Statement Required</b>	No
<b>Number of Submissions Received</b>	One

<b>Date application received</b>	16 September 1999
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**FACILITY VISITS:**

<b>DATE</b>	<b>PURPOSE</b>	<b>PERSONNEL</b>	<b>OBSERVATIONS</b>
15/10/99	Check Site Notice	Eamonn Merriman	-
22/2/00	Site Inspection	Brendan Wall	-
9/5/01	Site Inspection	Brendan Wall	-

**2. Facility Development**

**Facility Design**

The boundary of the facility is delineated on three sides by a 2.8m wall. The remainder of the site has a 2m fence with a hedge and mature trees. The total area of site is 0.235 hectares. The site is covered with either buildings (warehouse and offices), concrete (forecourt) or paving / loose pebbles (walkway around building and rear of building). The warehouse consists of three bays (A, B and C) each of which is 13m x 36.5m. Bay B contains a Wet Process Area, which is used for the quarantine of hazardous materials. This area is bunded with a capacity to contain 49 cubic meters. The remainder of the warehouse is designed to contain 110 cubic meters of liquids in an emergency situation (note that liquid wastes are not accepted and liquid in this case refers to firewater). Bunded storage tanks for diesel and heating oil are located in the warehouse. A 40,000-litre firewater tank is situated on the forecourt.

**Operation, Waste Acceptance and Procedures**

All consignments of waste are pre-arranged. All waste is inspected, weighed and then stored in an appropriate bay within the warehouse until it is processed further. Processes carried out at the facility include repackaging, dismantling and volume reduction processes such as shredding and baling, sorting and drying. Non-compliant wastes are isolated in a quarantine area. No chemical processing is carried out.

Most of the processes are dry except for the Vibrating Separating Mechanism. This process uses water to aid separation of high value materials and is carried out in the Wet Process Area. The water is reused. Many of the processes are batch and carried out when sufficient waste has been collected. Written procedures are in place for waste handling. The applicant has applied to install electric drying equipment for processing small amounts of metal hydroxide sludges and other wet solids. The Harter dryer proposed is an enclosed system with a capacity of 250 Kg –

1000 Kg per 24-hour batch. According to the manufacturers the machines operate on the condensation principle at low operating temperatures.

The installation of two of these dryers in the wet process area of the warehouse is allowed for in the PD (*Condition 3.9*). The proposed conditions require that there shall be no direct emissions to air from the enclosed dryers and all liquid collected from the dehumidification process must be collected for disposal off site. Sludges or wastes containing oils or solvents cannot be processed using the dryer.

All wastes, after on site processing, are stored in the warehouse pending shipment to facilities both in Ireland and overseas for the recovery of metals and other wastes. *Condition 5.10* specifies that the destination of all waste sent off site be agreed in advance with the Agency. Records of all waste shipments must be maintained at the facility (*Condition 10.2*).

### **3. Waste Types and Quantities**

The total amount of waste accepted in 2000 was 937.6 tonnes. This consisted of 933 tonnes of non-hazardous waste and 4.6 tonnes of hazardous waste. The applicant has indicated that the capacity of the facility is approximately 5,000 tonnes per annum.

A range of non-hazardous and hazardous wastes is accepted at the facility for recovery. These include the following non-hazardous wastes; non-ferrous scrap, precious metal scrap, electrical and electronic equipment, stainless and high-speed steel scrap, nickel, inorganic minerals and plastics. Hazardous wastes currently accepted include metallic filter cakes, batteries, and electronic and electrical equipment containing hazardous components, inkjet cartridges and zinc oxide filter cake waste. The processing of any new categories of hazardous waste must be agreed with the Agency (*Conditions 5.3.6 and 5.9.2*).

*Condition 5.1 and Schedule A: Waste Acceptance* of the PD specify which wastes may be accepted at the facility and limit the total quantity of wastes to 5,000 tonnes per annum (the maximum projected throughput). All waste accepted at the facility must be for recovery.

### **4. Emissions to Air**

There are no direct emissions to air. All processes are carried out within the warehouse. A bag filter is used to contain dust from the hammermill unit. The dust is recovered and sent with the crushed waste to the recovery facility. Fugitive dust emissions are possible during the operation of some processes (e.g. shredding, crushing and sieving).

In the application, dust monitoring close to the facility boundary and off site demonstrated that dust deposition is not likely to cause a nuisance. Metals analysis

was carried out on the dust samples. The results indicate the presence of metals (nickel, iron and zinc) in the samples. There are no EU Air Quality Standards for dust fall and its metal content. The German T.A. Luft Regulations, 1986 set "limit deposition concentrations" in deposited dust (ambient air quality guideline values for lead is 250ug/m<sup>2</sup>/day and cadmium is 5ug/m<sup>2</sup>/day). The results for lead and cadmium were well below the T.A. Luft Limits. *Condition 8.1* and *Table E.1* of the PD require the measurement of dust deposition rates in proximity to the facility boundary. The metallic element of the dust must also be determined. Dust controls are covered by *Condition 7.4*.

*Condition 6.3* of the PD controls noise emissions, which are not envisaged to be a problem due to (a) the location of the facility within an industrial estate and (b) the carrying out of all process activities within the warehouse.

## **5. Emissions to Groundwater**

Domestic wastewater is treated on site using a Biocycle wastewater treatment system and irrigation ditch installed in June 1998. There is a maintenance contract in place. There are no other emissions to groundwater. There is a borehole on site, which supplies potable water to the facility. Iron and manganese are naturally elevated in the well water. The results for other parameters are below the MAC values outlined in the Drinking Water Regulations (SI 81 of 1989). Annual groundwater monitoring as proposed by the applicant is required under the PD.

## **6. Emissions to Surface Water**

There are no direct emissions to surface water other than rainwater from the roofs and forecourt. The risk of surface water pollution is low given that no liquid waste is stored at the site and all operations are carried out indoors. Runoff from the forecourt drains through a three-chamber petrol interceptor and discharges to a land drain on the perimeter of the industrial estate. This land drain is rainfall dependent and during the summer the applicant has stated that it dries out. From visual inspection this land drain appears to be polluted both upstream and downstream of the discharge from the KMK facility (during an inspection on the 9/5/01 an oily film and scum was noted on the surface water). The likely source of this pollution is agriculture or other discharges from the industrial estate. This drain connects to the Tullamore River approximately half a kilometre away.

Analysis of the rainwater run-off from the forecourt in November 1999 showed that the water had elevated levels of some metals (e.g. nickel - 5740ug/l and zinc - 737ug/l). Further analysis carried out in May 2001 indicates that metal levels are significantly reduced with nickel and zinc concentration of <100 ug/l and 190 ug/l respectively, these concentrations are below the typical ELVs for discharges of metals to surface water set in IPC BATNEEC notes. The PD requires good housekeeping to prevent contamination of forecourt surface water runoff with

metallic dusts. Dust control measures are specified in *Condition 7.4*. The PD also requires the efficiency of the oil interceptor and silt trap to be reviewed and upgraded as appropriate to meet the draft European CEN standard (*Condition 3.7.1*). *Condition 8.1* and *Schedule E* of the PD requires surface water monitoring.

## **7. Emissions to Sewer**

There are no emissions to sewer.

## **8. Other Significant Environmental Impacts**

None (Condition 6.1 of the PD).

## **9. Waste Management, Air Quality and Water Quality Management Plans**

The Draft Waste Management Plan for Midlands Region (January 2000) does not deal specifically with this facility. While the facility is located in Offaly, the collection of waste is carried out on a national basis.

## **10. Submissions/Complaints**

There was one submission with respect to the facility. This submission was received from Duchas The Heritage Service on the 23<sup>rd</sup> July 2001. Duchas state that they have no objection to the granting of this licence.

There have been no complaints with respect to the facility.

Signed \_\_\_\_\_

Dated

Brendan Wall

**APPENDIX 1**  
**LOCATION PLAN and FACILITY LAYOUT**