

# INSPECTORS REPORT

**WASTE LICENCE REGISTER NUMBER**      **122-1**

**APPLICANT:** Silver Lining Industries (Ireland) Ltd.

**RECOMMENDATION:** That a Proposed Decision be granted subject to conditions be granted.

## 1. Introduction:

Silver Linings Industries (Ireland) Ltd are part of a larger Silver Lining group that is based in Leeds in the UK. The company currently collects photochemical waste and small quantities of other wastes which is then shipped to Leeds for silver recovery. The facility is located in an existing industrial estate in Tallaght on the outskirts of Dublin. The company has proposed to recover the silver on-site subject to obtaining the waste licence. The facility is a self contained unit within a row of industrial premises. Appendix 1 contains a site location map and a plan showing the layout of the facility

The company collects chemical waste (mainly in 25 litre containers) from the photographic industry (minilabs etc.), from dry cleaners, from metal processors and from users of small quantities of organic solvent. Electronic and other dry waste is also collected. The largest percentage of waste arriving at this site, approximately 70%, will be from the photographic industry. This waste is stored at the facility and shipped to the UK for recovery. The company proposes to process the photographic waste at the facility by electrolytic and chemical precipitation leading to silver recovery. All residues and products of this process will be shipped to the UK for further recovery. The company also has the option not to recover the photographic waste on site but send it to the UK for recovery at any stage, as they are currently doing.

The recovery activities carried on are Fourth Schedule; Class 3: Recycling or reclamation of metals and metal compounds, and Class 13: Storage of waste primarily for the above activity. The recovery plant uses waste products from the above industries to recover silver and produce a re-useable liquid for a further recovery process. The recovery operation uses both an electro-plating step and a precipitation step to recover the silver in a closed loop batch system. The recovered silver sludges and re-useable liquids are sent to Leeds for further processing and recovery.

<b>Quantity of waste (tpa)</b>	4650
<b>Environmental Impact Statement Required</b>	No.
<b>Number of Submissions Received</b>	3
<b>INSPECTOR'S RECOMMENDATION</b>	The proposed decision as submitted to the Board be approved

## SITE VISITS:

DATE	PURPOSE	PERSONNEL	OBSERVATIONS
27/10/99	Check site notice and site visit	B. Meaney	Site Notice compliant with regulations
12/03/01	Site inspection	K. McDonnell	Site was generally tidy and well maintained

## 2. Facility Development

The proposed principal activity is the recovery of silver from waste from the photographic industry either in a form of silver flake or as silver sulphide.

In the proposed process, the incoming photographic fixer and developer waste are emptied (via a sump) into a 20,00 litre treatment tank at the back of the building. When the tank is charged, a sample is taken and the pH checked and adjusted if necessary to the optimum pH using waste acid or alkali on site. The material is then pumped to an electrolytic unit on the mezzanine floor. This unit plates the silver onto the cathode and the liquid is pumped back to the treatment tank for recirculation until the silver level in the liquid is reduced to a predetermined level. The remaining silver is precipitated using sodium sulphite and the precipitate is sent to Leeds for further recovery of the silver. The supernatant liquid is sent to another UK site for use as a reagent in the recovery of residual silver from photographic film.

The building has been fitted out with bunded chemical storage areas, dry waste storage areas and chemical storage and processing tanks. A small electrolysis unit is located on a mesh screen mezzanine floor. The mezzanine is also used for general storage. The proposed decision requires the applicant to agree a waste storage plan with the Agency based on the waste material compatibility and usage.

## 3. Waste types and Quantities:

The quantities of waste applied for are based on forward projections by the company. The hazardous waste material to be accepted is specified in Table E1.2 of the application and consists primarily (70%) of photographic, print and ink processing waste.

WASTE TYPE	MAXIMUM (TONNES PER ANNUM)
<b>Industrial Non Hazardous Liquids</b>	100
<b>Industrial Non Hazardous sludges</b>	50
<b>Industrial Non Hazardous solids</b>	300
<b>Hazardous</b>	4200
<b>TOTAL</b>	4650

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

There are no emissions to atmosphere arising from this facility. The process is a closed loop. Fugitive emissions to atmosphere may arise from the charging of the vessels and/or the loading and unloading of vehicles and Condition 6.8 requires the licensee to investigate options to reduce these emissions at the facility. Condition 6 also regulates any noise emissions from the facility.

#### **5. Emissions to Groundwater**

No emissions to groundwater are permitted.

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

There are no emissions of trade effluent to surface water or to sewer, except for the domestic sewage from the canteen toilet.

#### **7. Other significant Environmental Impacts**

None.

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

A **Waste Management Plan** for the Dublin Region has been adopted by the four Dublin local authorities. The companies supplying waste to the facility are not confined to the functional areas of the four Dublin local authorities. The facility is not specifically mentioned in the plan but it does provide for the recovery of wastes which is in line with the recommendations of the Plan.

**Air quality/Water quality Management plans:** There are no significant emissions to atmosphere and no discharges to surface water/sewer from this facility.

#### **(8) Submissions /Complaints**

Three submissions were received in relation to the waste licence application. One was a request for information re the status of the application and this was replied to. The other two submissions were complaints re the storage of material outside the facility building. Condition 5.3.2 prohibits the storage of any containers (either full or empty) outside of the facility building.

#### **(9) Other issues: Company registration and financial details**

The facility business name is not incorporated in the Republic of Ireland but is registered in the UK and Northern Ireland. The company is registered for tax and VAT purposes in the Republic. The facility is very dependent (financially) on the parent company in the UK (Silver Lining Industries Ltd.) From an assessment of the accounts submitted, the operation in the Republic would be expected to be able to cover the EPA monitoring costs. However, the applicant does not seem to have made any provision in the accounts for the costs of site remediation, closure or aftercare. The

EPA's legal advisor has advised that the Agency can't refuse a licence on the basis that they are not registered in Ireland, but that conditions on financial provisions be specified in the licence. The Proposed Decision requires that the applicant put a financial provision in place in the Republic of Ireland for their operations. Condition 12.2 requires a fully costed Environmental Liabilities Risk Assessment to be completed within 6 months and that a financial provisions proposal be submitted within 9 months of the date of licence. The financial provisions are to be in place within 12 months of the issue of the licence.

Signed: \_\_\_\_\_

Dated:

Name: Kevin McDonnell

**APPENDIX 1**  
**LOCATION PLAN and SITE LAYOUT DRAWING**

**APPENDIX 2**  
**LIST OF PERSONS MAKING SUBMISSIONS**