

This document has been cleared for submission to the Board by the Senior Inspector, Brian Meaney

Signed: N Keavey Date: 06/11/2014



LICENSING & RESOURCE USE

INSPECTOR'S REPORT ON A LICENCE APPLICATION

TO:	DIRECTORS	
FROM:	Patrick Geoghegan	Environmental Licensing Programme
DATE:	6th November 2014	
RE:	Application for an IE Licence from The Recycling Village , Unit 21, Duleek Business Park, Commons, Duleek, Co. Meath W0286-01	

1 Application Details

<p>Class of Activity under First Schedule of EPA Act 1992, as amended:</p>	<p>11.1: <i>The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised license under Part IV is in force or in respect of which licence under the said Part is or will be required.</i></p> <p>11.2 (d) (f): <i>Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities:</i></p> <p>(d) <i>Repackaging prior to submission to any of the other activities listed in paragraph 11.2 or 11.3;</i></p> <p>(f) <i>recycling or reclamation of inorganic materials other than metals or metal compounds</i></p> <p>11.6: <i>Temporary storage of hazardous waste, (other than waste referred to in paragraph 11.5) pending any of the activities referred to in paragraph 11.2, 11.3, 11.5 or 11.7 with a total capacity exceeding 50 tonnes, other than temporary storage, pending collection, on the site where the waste is generated.</i></p>
<p>Category of Activity under IED</p>	<p>Class 5.1 (d) (f): <i>Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or</i></p>

(2010/75/EU)	<p><i>more of the following activities:</i></p> <p>(d) <i>Repackaging prior to submission to any of the other activities listed in points 5.1 and 5.2;</i></p> <p>(f) <i>Recycling/reclamation or inorganic materials other than metal or metal compounds</i></p> <p>5.5: <i>Temporary storage of hazardous waste not covered under point 5.4 pending any of the activities listed in points 5.1, 5.2, 5.4 and 5.6 with a total capacity exceeding 50 tonnes, excluding temporary storage, pending collection, on the site where the waste is generated.</i></p>
Title of BREF document (main activity):	BREF document for Waste Treatment Industries (August 2006)
CRO Number:	374465
Licence application received:	08th August 2012
EIA Required:	No, not required by the Planning Authority. Also screened out by Agency.
Notice under Article 14 (2) (b)(ii) Notice issued:	18/06/2013
Information under Article 14(2)(b)(ii) Received:	19/07/2013
Notice under Article 16(1) issued:	18/07/2013
Information under Article 16(1) Received:	17/09/2013
Notice under Section 76A(3) issued:	19/02/2014
Information under Section 76A(3) received:	15/04/2014
Notice under Regulation 10(2)(b)(ii) issued:	09/06/2014 and 13/08/2014

Information under Regulation 10(2)(b)(ii) received:	10/07/2014 and 01/10/2014
Submissions	One submission received
Site visit:	23/08/2013

2 Applicant and facility

The Recycling Village Ltd operate a recycling facility for waste electrical and electronic equipment (WEEE). The facility holds a Waste Facility Permit issued by Meath County Council on 05/08/2011. The applicant is proposing to increase the waste intake from 9,000 tpa to 15,000 tpa of both Waste Electrical and Electronic Equipment (WEEE) and batteries.

The company operated a similar facility in Tenure, Drogheda since 2004 under waste permits issued by Louth County Council, prior to moving operations to its new facility at Duleek Business Park.

The facility employs 31 people and is located on a 1.56 acre site approximately 1km from Duleek village. Neighbouring units in the business park are used for light industrial and commercial activities.

The existing recycling facility provides a service for WEEE including Flat Panel Displays, TV and PC monitors, mixed WEEE, small domestic appliances (e.g. hairdryers, toasters, kettles) and lead acid and other batteries.

The WEEE is generated at civic amenity sites, waste management facilities and from commercial and industrial sources, as part of compliance schemes.

The current hours of waste acceptance and operation are 08:00 to 17:30 Monday to Friday as well as 08:00 to 12 noon on Saturday. This is well within their existing waste facility permit and planning permission which specifies 08:00 to 18:00 Monday to Friday as well as 08:00 to 14:00 on Saturday.

The applicant is proposing to extend the hours of waste acceptance to: 07:00 to 19:00 Monday to Saturday (including Bank Holidays). An extension to the hours of operation is sought to: 06:00 to 21:00 Monday to Saturday (including Bank Holidays). Condition 1.6 of the RD restricts waste acceptance and operational times to the Installation's planning permission.

3. Operational Description:

The facility is comprised of one large process building, a facility office, storage units and concrete yard.

Flat Panel Displays (FPD); televisions containing cathode ray tubes (CRT); PC & ICT equipment; small household WEEE such as electric kettles, toasters etc as well as batteries are processed at this facility. The activity includes temporary storage prior to removal off-site for further recovery operations.

Flat Panel Displays encompass a growing number of electronic visual display technologies. They are lighter and thinner than traditional television sets. FPD's are manually dismantled at this facility. All dismantling lines/booths incorporate air extraction. The casings are removed and the fractions are extracted and sorted. Fractions consist of Plasma glass, Liquid Crystal Display (LCD) glass, plastics, cable, circuit boards, steel and aluminium. Most of the modern FPD's use LCD technology and most LCD screens are backlit. These backlights are removed in isolation, for transport off-site to a specialist mercury recoverer. The LCD screens are separated and transported off-site to a specialist energy recoverer. All other fractions are also recovered off-site.

Cathode Ray Tubes are dismantled from the traditional televisions and their casings manually removed. Plastic, cables, circuit boards, panel (front) and funnel (back) glass are manually extracted and segregated. The main hazards are high concentrations of lead contained in the glass and fluorescent powder also found as a coating on the glass which contains heavy metals. The fluorescent powder is removed using a dry vacuum system and stored for off-site recovery.

Similar manual disassembly procedures are applied to PC and ICT equipment with all separated fractions bulked, baled (plastics & metals), labelled and stored prior to transport off-site for further processing and recycling offsite.

The CRT's are segregated into panel and funnel glass and processed separately through dry glass cleaning equipment. The recovered fractions include glass, metal and plastics.

Small domestic appliances are also dismantled to remove power leads, batteries and high value material prior to shredding. Ferrous metal is removed by band magnet to storage bins prior to transport off-site for recovery. All other separated fractions are stored prior to transport off-site.

Lead-acid, primary and portable batteries including NiCad are sorted, segregated, weighed and repackaged prior to transport off site for further processing and recycling. During the sorting process, portable batteries found mixed with lead acid batteries in incoming containers are deemed non-compliant and removed to their relevant containers, No treatment e.g. removal of acids, is carried out at the site.

Facility Process:

Table 1 below provides an outline of the processes at the facility together with key outputs. All pertinent information on emissions is provided in section 4.

Inputs	Process	Outputs	Emissions
Flat Panel Displays & TV's containing Cathode Ray Tubes	Manual dismantling Glass cleaning (dry vacuuming)	Plastic casings Circuit boards Plasma (FPD's), Panel & Funnel glass (CRT's) LCD Screen Backlight Glass fines Cables	Emissions to Air from extraction ducts in dismantling area of Process building – treated through dust and carbon filtration.

		Aluminium; copper	
PC & ICT equipment	Manual dismantling	Plastic casings Processors RAM Hard Disks Other Drives Circuit Boards Cables	
Small waste domestic appliances	Manual sorting and dismantling. Shredding. Ferrous metal extraction by Band magnet.	Power leads Batteries High-value material Metal Plastic	
Batteries (Lead-acid, primary and Ni-Cad) and accumulators	Sorting/segregation	Non-compliant batteries e.g. Nickel Metal Hydride Lead Acid batteries Primary batteries Ni-Cad batteries Accumulators	None

Table 1.

4. Consideration of Best Available Techniques (BAT) and BAT Conclusions

The following reference documents have specific relevance in the determination of BAT for the installation:

- BREF 'Integrated Pollution Prevention and Control (IPPC) Reference document on Best Available Techniques for Waste Treatment Industries' (August 2006)

Note that aspects of the following reference documents also have relevance:

- Reference document on Best Available Techniques on Emissions from Storage (July 2006);
- Reference document on Best Available Techniques for Energy Efficiency (February 2009)
- Reference document on Best Available Techniques on the General Principles of Monitoring (July 2003)

The applicant submitted an assessment of the installation activity against the relevant BAT Conclusion requirements contained in the above BREF Documents. The

applicant has demonstrated that the installation will comply with all applicable BAT Conclusion requirements specified in the Waste Treatment Industries BREF and those contained in the additional BREF documents. Regard was also had to relevant BAT Conclusion requirements for Environmental Management Systems set out in recently published Commission Implementing Decisions (CIDs).

I consider that the applicable BAT Conclusion requirements are addressed through: (i) the technologies and techniques as described in the application; (ii) the standard conditions specified in the RD; and (iii) where applicable, the inclusion of additional specific conditions (see Table 2 below).

Table 2. Additional Conditions in RD to address BAT Conclusion requirements

BREF Document for Waste Treatment Industries	
Additional Requirements:	Condition/Schedule
Environmental policy	2.2.2.1
Preventative Action requirements	2.2.2.6
Auditing of the EMS	2.2.2.7
EMS documents availability	11.6
Requirements when choosing/designing plant/infrastructure	3.2
Labelling tanks, containers, drums and pipework	3.9.7
Waste acceptance procedures	8.12
BREF Document on Energy Efficiency	
Incorporating energy efficiency into EMS	2.2.1
Maintenance and optimisation of energy efficiency	2.2.2.10

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached RD comply with the requirements and principles of BAT. I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the installation is located, designed, built, managed, maintained, operated and decommissioned.

5. Emissions:

5.1 Air

There is one point emission source to atmosphere from the facility, which originates from the dismantling lines' extraction duct. Carbon and dust filtration units are provided upline of the emission point.

Emission monitoring data has been submitted as part of the licence application. Results are outlined below in Table 3.

Parameter	As discharged (mg/Nm ³)	Maximum Quantity discharged (kg/hour) (based on flow rate of 10,000 Nm ³ /hour as outlined in application)
Total Particulates	1.92	0.019
Arsenic	<0.002	0.000
Cadmium	<0.003	0.000
Chromium	<0.036	0.000
Cobalt	<0.001	0.000
Copper	0.234	0.002
Lead	0.184	0.002
Mercury	<0.001	0.000
Nickel	<0.018	0.000
Phosphorus	<0.002	0.000

Table 3

The emission is deemed minor due to the nature and quantity of the emission. The RD sets an emission limit value for total particulates and requires quarterly and bi-annual monitoring for particulates and metals respectively.

The proposed waste throughput changes are not expected to have a significant effect on air emissions.

Schedule C of the RD requires weekly checks on the carbon and dust filtration units.

Dust deposition levels have been routinely monitored as part of the waste facility permit, at 4 locations at the site boundary. The monitoring results submitted as part of the licence application indicates full compliance with the permit which sets the BAT level of 350 mg/m²/day. Schedule C of the RD requires annual dust deposition monitoring and sets the BAT limit of 350mg/m²/day.

Condition 6.7 requires the identification and reduction of fugitive emissions to air.

5.2. Emissions to Sewer

There are no existing or proposed process emissions to sewer. Sanitary effluent is the only discharge to the sewer system serving the industrial estate.

5.3 Storm Water Runoff

A site drainage map was submitted as part of the licence application together with a drainage survey. The sources of stormwater consists of yard areas and building roof areas. There is a single discharge point (SW1) from the facility, via an oil interceptor, to a common surface water drainage system serving the entire industrial estate. The surface water sewer ultimately discharges to the River Nanny, approximately 1 km to the south-east of the facility.

The application contains monitoring data for sampling events from September 2012 – June 2013, for the discharge from SW1. This data was considered in the context of the environmental quality standards in the European Communities Environmental Objectives (Surface Water) Regulations 2009. Substances including ammonia, chromium, cadmium and lead have exceeded environmental quality standards that are applicable to surface water bodies (see table 4 below).

Parameter	June 2013 February 2014	EQS
BOD (mg/l)	<2.0	4.00
pH	7.50 - 7.70	4.5 – 9.0 *
Total Ammonia (mg/l)	0.20 – 1.10	0.14
Mineral Oils (mg/l)	0.01 – 2.66	-
Suspended solids	5.00 – 10.00	-
Arsenic (µg/l)	0.03 – 1.06	25
Nickel (µg/l)	0.16 - 14.90	20.00
Lead (µg/l)	60.63 – 194.50	7.2
Cadmium (µg/l)	2.30- 2.42	<0.45 – 1.5 *
Chromium (unspecified) (µg/l)	3.10 – 15.70	Cr III: 4.7 Cr VI: 3.4

Table 4

*denotes Maximum Allowable Concentration (MAC) is dependent on water hardness classes.

Instances of high ammonia and metal concentrations were attributed to contaminated water draining from incoming boxes of waste batteries, in particular lead-acid batteries. Procedures have been amended to manage such water as waste and not allow its discharge to the storm water system. Additionally, samples which previously had been taken within the final chamber of the interceptor tank were repeated in September 2013 and taken instead from a manhole immediately downstream of the interceptor. The lead analysis on these samples were recorded at 60.63 and 80.89 µg/l.

Other sources of metals pollutants are likely to be dust or other run-off from a limited area of yard (approximately 800m²), including residues from WEEE stored outdoors being washed into drain surfaces within the facility. The emissions of surface water run-off is limited quantitatively due to the size (area) of the yard. Taking a mean daily rainfall rate of 25mm¹ the average discharge volume is low i.e. 0.23L/s. This discharge is combined with other industrial facility discharges within the combined industrial estate's surface water sewer, prior to draining to the River Nanny.

The Biological Quality Rating (BQR) of the River Nanny at Bellewstown (approximately 3km from Duleek) is recorded by EPA as 3-4 corresponding with a sampling event in August 2010. Ecological status is recorded as "Moderate". Monitoring was carried out in 2014 but the result is not currently available as quality control is yet to be applied to the data.

The chemical status of the River Nanny at Bellewstown was obtained from local authority data obtained through EDEN. The most recent records available is for August 2012 and is as follows:

BOD: 1.93mg/l

Total Ammonia: 0.024 mg/l

Orthophosphate (as P): 0.077 mg/l

Conductivity: 694 µS/cm

The applicant submitted results of their sampling of the River Nanny at Bellewstown, in September 2013. The result for lead was reported as 3.57 µg/l.

It is appropriate that the licensee sets trigger levels for parameters in the context of applicable environmental quality standards in the EC Environmental Objectives (Surface Waters) Regulations 2009.

Condition 6.10 of the RD sets out the following specific requirements:

- setting of trigger levels for ammonia, COD, conductivity, suspended solids and relevant heavy metals;
- a response programme to address instances where trigger level values are exceeded.

Condition 5.1 and Schedule B sets an emission limit value for mineral oils.

1 Source: Met Eireann Website- 2012 rainfall data

5.4 Emissions to Ground/Groundwater

There are no existing or proposed process emissions to ground or groundwater and the RD prohibits any such discharges. The facility is paved with runoff directed to a surface water discharge system, via an oil separator.

Storage /Bunding:

The application contains a report on inspection and integrity testing of the single underground interceptor on site. The report indicates it is structurally sound.

Only diesel and lubricants are stored on site. These are stored in small 25 litre drums in a bunded secure store. The entire yard area is paved and contains bunded overground steel closed industrial containers, and are used for the temporary storage of facility outputs such as lead acid batteries, Ni-Cad batteries and glass. The remaining outputs for recovery off-site, as identified in Table 1, are stored in the process building itself.

Batteries are exported to the UK, France and Spain for recycling. Treatment of waste batteries, as defined in Annex III of the Batteries Directive 2006/66/EC, is not carried out at the facility.

The Batteries Directive 2006/66/EC requires battery exporters to comply with waste shipment laws. Regulation No. 1013/2006 addresses shipment of waste. Condition 8.11 of the RD requires all exports of all waste (including batteries) in accordance with this regulation.

5.5 Noise:

The facility is located in an industrial estate along with a mixture of industrial/commercial properties, approximately 1 KM from Duleek village. There are no noise complaints on record.

6. Use of Resources

In 2011 the resources consumed at the facility were reported as:

- electricity and heating (165,600 kWh)
- diesel (2,700 litres) for forklift. Diesel is not stored on-site.

Condition 7 requires an energy audit to be carried out to identify practicable opportunities for energy use, reduction and efficiency.

7. Fit & Proper Person Assessment

The Fit & Proper Person test requires three elements of examination:

- Technical Ability
- Legal Standing

- Financial Standing

The applicant has not been convicted of any offences under the EPA Acts.

It is considered on the basis of the information provided in the application, that the applicant meets the required technical and financial requirements and can be deemed a Fit & Proper Person for the purpose of this licence.

Condition 12 of the RD requires the licensee to arrange for an independent and appropriately qualified consultant to submit a fully costed ELRA within six months of date of grant of the licence. It also requires the applicant to make financial provision to cover any liabilities associated with the operation of the installation. Condition 10 of the RD requires the licensee to submit a DMP to the satisfaction of the Agency within six months of date of grant of licence.

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

The expiry date of the North East Region Waste Management Plan 2005-2010 was extended and it recognises the role of the private sector in developing waste recycling facilities. One of the Regional policy objectives is to "*continue to improve the infrastructure for recycling and recovery of waste*".

The activity and the applicant's proposal for increased throughput complies with the objectives of the plan.

Ireland has collection, treatment and recycling targets required under EU Directive 2006/66/EC for waste batteries and accumulators.

The recast of the WEEE Directive, transposed into national law on 14 February 2014 sets new challenging collection and recovery targets for 2016 and 2019, based on average weight of EEE placed on the market in the previous 3 years.

The installation is primarily a recycling activity and will continue to contribute to the State's overall objective to meet waste recycling targets.

I consider that this installation is consistent with the objectives of the above directives.

There is no relevant Water Quality Management Plan and no air relevant air quality plan for the immediate environs of the facility.

9. Baseline Report

A baseline report was submitted with the application. The report characterises the existing soil, bedrock and groundwater at the site using GSI records and the results of site specific investigations. The site was originally used as a light industrial steel fabrication facility for the period 2005-2011.

Soil and groundwater analysis was undertaken for relevant parameters including metals. Soil results were compared with the UK Environmental Agency Soil Guideline Values (SGV) and to average soil values from the EPA National Soil Database.

Results reported by the applicant indicated generally good quality soil with only marginal exceedance of the SGV for copper in one of the three boreholes i.e. 22,007ug/kg versus 19,500ug/kg.

Groundwater results were compared with groundwater threshold values specified in the EC Environmental Objectives (Groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and with interim groundwater guideline values specified in the EPA publication: "Towards setting guideline values for the protection of groundwater values in Ireland – Interim Report".

Results reported by the applicant indicated generally good quality groundwater with moderately elevated levels (average values) of the following substances when compared to guideline values/groundwater regulations referenced above:

- potassium (9.48mg/l versus 5.0mg/l); - EPA Guideline Values
- iron (723.9mg/l versus 200mg/l), - EPA Guideline Values
- ammonia 0.21mg/l versus 0.175mg/l – S.I. No 9 of 2010
- phosphate (0.07mg/l versus 0.03 mg/l) - EPA Guideline Values
- total coliforms (9 CfU/100mls versus 0 CfU/100mls) – EPA Guideline Values.

Results of all metal analysis were well within the limits set out in EC Environmental Objectives (Groundwater) Regulations / EPA Guideline values.

The RD requires soil monitoring to be carried out every 10 years. Groundwater monitoring is required bi-annually for specified substances and every 2 years for remaining substances.

10. Environmental Impact Assessment (EIA)

The planning authority has confirmed that an EIS was not required as part of the facility's planning permission application.

In accordance with Section 87(2A) of the EPA Acts 1992-2012 and with regard to Section 87(11) of the EPA Acts 1992-2012, the Agency carried out an EIA Screening to determine whether Environmental Impact Assessment is required for this licence application.

The screening assessment determined that an Environmental Impact Assessment, as respects the matters that come within the functions of the Agency, is not required for the activity to which this licence application relates. This is due to (1) the Installation due to its nature and scale of processes does not fall under part 1 of Schedule 5 of the Planning and Development Regulations 2001, as amended and (2) the Installation is below the EIA threshold of 25,000 tonnes per annum for development 11(b) of part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended i.e., *Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule.*

11. Cultural Heritage, Habitats & Protected Species

There are no registered Natura 2000 sites within or adjacent to the installation. The following Natura 2000 sites are located within a 15km radius of the installation: Boyne Estuary SPA; River Nanny Estuary & Shore SPA; River Boyne and Blackwater SPA and River Boyne & Blackwater SCA.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on a European Site(s). In this context, particular attention was paid to the European Sites at the Boyne Estuary (SPA 004080); the River Nanny Estuary & Shore (SPA 004158); the River Boyne & Blackwater (SPA 004232); the River Boyne & Blackwater (SAC 002299) and the Agency considered, for the reasons set out

below, that the activity is not directly connected with or necessary to the management of those sites as European Sites and that it can be excluded on the basis of objective scientific information, that the activity, individually or in combination with other plans or projects, will have a significant effect on a European site, and accordingly the Inspector determined that an Appropriate Assessment of the activity is not required.

It has been determined that the Installation is not likely to have significant effects on any European site due to the absence of significant environmental emissions, the nature and scale of operations and the distance between the Installation and the designated sites.

12. Cross Organisation/Office liason

I have consulted with Ms Caroline Corrigan, Senior Executive Engineer, Meath County Council regarding enforcement history relating to the waste facility permit. Ms Corrigan has described the operators as consistently compliant.

I have consulted with Peter Webster OEA, regarding river water data, Pamela Mc Donnell OCLR, on EIA and Donal Grant OCLR, on AA.

13. Submissions

There was one submission on this application as follows:

HSE Dublin North East, Environmental Health Service, Co. Clinic, Navan

The submission refers to an inconsistency in relation to operation hours for the facility and inferred non-compliance with the waste facility permit condition in this regard. In doing so the HSE makes reference to an EIS. Additionally, the HSE indicate in their submission that environmental health was not included in the screening/scoping stage of the waste licence application and that their response/submission is based solely on the documentation submitted by the company as part of the licence application.

Comment:

The licence application did not contain an EIS, as stated in section 1 of this report. It does contain the completed application form together with an accompanying report containing and titled "Supporting Documentation".

The licence application does contain an anomaly regarding operational and waste acceptance hours. I sought clarification from The Recycling Village on this matter on 11/10/2013. I was informed that the hours outlined in the application were the hours proposed, in view of the proposed throughput in operations, should a licence be granted. The company's current waste acceptance hours and operational hours are within the conditions of the Waste Facility Permit.

The HSE observes that they were not included in the screening scoping stage of the licence application. This is not a matter which falls within the remit of the Agency. There are no aqueous discharges from this facility other than surface water run-off from yard areas. In addition, atmospheric emissions are classified as minor.

14. Recommended Determination

The recommended determination specifies the necessary measures, to provide that the the installation shall be operated in accordance with the requirements of Section 83(5) of the EPA Act 1992 as amended.

The RD permits the applicant to increase the the quantity of waste it can accept, and it gives effect to the requirements of the EPA Acts 1992 as amended.

15. Charges

The financial charge proposed in the RD is €4,563. This has been calculated based on the enforcement effort predicted for the facility.

16. Recommendation

Having regard to the Appropriate Assessment and the requirements of Section 83(5) of the EPA Acts as amended, I recommend that a Proposed Determination be issued subject to the conditions and for the reasons as drafted in the RD.

Signed



Patrick Geoghegan

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2013.