

# **ANNUAL ENVIRONMENTAL REPORT 2015**

For

**KMK METALS RECYCLING LTD**  
Cappincur Industrial Estate,  
Daingean Road,  
Tullamore,  
Co. Offaly



By

**QED Engineering Ltd.**  
M-TEK Building 1  
Armagh Road  
Monaghan  
Tel: 047 72060

REPORT PERIOD:  
JANUARY 2015-DECEMBER 2015

**TABLE OF CONTENTS**

1.0	REPORTING PERIOD	5
2.0	EMISSIONS FROM THE FACILITY	5
2.1	Dust	5
2.2	Stack Emission Point Monitoring.	7
2.3	Noise	8
2.4	Surface Water and Wastewater emissions	14
2.5	Groundwater	18
3.0	WASTE ACTIVITIES CARRIED OUT AT THE FACILITY	19
4.0	QUANTITY AND COMPOSITION OF WASTE RECOVERED, RECEIVED AND DISPOSED OF DURING THE REPORTING PERIOD INCLUDING EWC CODES	20
5.0	WASTE MANAGEMENT RECORD	20
5.1	Waste Received in 2015	20
5.2	Waste Despatched from the Facility for Recovery in 2015	20
6.0	WASTE RECOVERY REPORT	20
7.0	RESOURCE CONSUMPTION SUMMARY	23
8.0	REVIEW OF NUISANCE CONTROLS	24
9.0	SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS AND ENVIRONMENTAL MANAGEMENT PROGRAMME	24
10.0	POLLUTANT RELEASE AND TRANSFER REGISTER – REPORT FOR PREVIOUS YEAR	27
11.0	POLLUTANT RELEASE AND TRANSFER REGISTER – PROPOSAL FOR CURRENT YEAR	27
12.0	NOISE MONITORING REPORT SUMMARY	27
13.0	AMBIENT MONITORING REPORT SUMMARY	27
14.0	TANK AND PIPELINE TESTING AND INSPECTION REPORT	27
14.1	Bund Assessments.	27
14.2	Pipeline inspections and testing	27
15.0	REPORTED INCIDENTS SUMMARY	28
16.0	COMPLAINTS SUMMARY	30
17.0	ENERGY EFFICIENCY AUDIT REPORT SUMMARY	30

18.0	VOLUME OF TRADE EFFLUENT/LEACHATE AND/OR CONTAMINATED STORMWATER PRODUCED AND VOLUME TRANSPORTED OFF-SITE	30
19.0	REPORT ON THE ASSESSMENT OF THE EFFICIENCY OF USE OF RAW MATERIALS IN PROCESSES AND THE REDUCTION IN WASTE GENERATED.	31
20.0	REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MINIMISE WATER DEMAND AND THE VOLUME OF TRADE EFFLUENT DISCHARGE.	31
21.0	DEVELOPMENT / INFRASTRUCTURAL WORKS SUMMARY (COMPLETED IN PREVIOUS YEAR OR PREPARED FOR CURRENT YEAR).	31
22.0	REPORT ON THE FINANCIAL PROVISION MADE UNDER THIS LICENCE, MANAGEMENT AND STAFFING STRUCTURE OF THE FACILITY, AND A PROGRAMME FOR PUBLIC INFORMATION.	31
23.0	REVIEW OF DECOMMISSIONING PLAN	34
24.0	ENVIRONMENTAL LIABILITIES RISK ASSESSMENT	34
25.0	DEVELOPMENT WORKS	34
25.1	Development works in 2015	34
25.2	Proposed Development for 2016	34
26.0	OTHER ITEMS	34

## **LIST OF TABLES**

Table 1: Dust Monitoring Licence Requirements	
Table 2: Stack Monitoring Licence Requirements	
Table 3: Stack Monitoring Results 2015	
Table 4: Noise Monitoring Licence Requirements	
Table 5: Compliance table of results with licence limits	
Table 6: Attenuation of Noise over Distance for point source emissions e.g. industrial sources	
Table 7: Tonal Features Identification	
Table 8: Waste water Monitoring Licence Requirements	
Table 9: Storm Water Monitoring Licence Requirements	
Table 10: Storm Water and waste water Monitoring Summary	
Table 11: Waste Water Monitoring Results	
Table 12: Storm Water Monitoring Results	
Table 13: Groundwater Monitoring Licence Requirements	
Table 14: Summary of Waste Received in 2015	
Table 15: Breakdown of the Energy Consumption for the Year	
Table 16: Environmental Objectives and Targets for 2015	
Table 17: Environmental Objectives and Targets proposed for 2016	
Table 18: Incidents Reports Table During 2015	
Table 19: Storm Water Transported Off-site	

## **LIST OF FIGURES**

Figure 1: KMK Dust Monitoring Locations 2015	<a href="#">6</a>
Figure 2: KMK Noise Monitoring Locations 2015	9

**LIST OF APPENDICES**

Appendix 1	Noise Monitoring Report 2015
Appendix 2	Waste Received in 2015
	Waste Despatched of in 2015
	Waste in Stock at end of 2015
Appendix 3	PRTR Report for 2015

## 1.0 REPORTING PERIOD

The reporting period for this Annual Environmental Report is 1st January 2015 to 31st of December 2015.

## 2.0 EMISSIONS FROM THE FACILITY

A summary and interpretation of all emissions monitoring carried out at the facility during 2015 is discussed in detail below.

### 2.1 Dust

The full Ambient Dust Monitoring Reports were submitted separately to the EPA. A summary of the reports is provided below.

Dust deposition monitoring was carried out at the site from the 28<sup>th</sup> July to the 25<sup>th</sup> August 2015 by Q.E.D. Engineering Ltd, in accordance with Waste Licence Requirements (Table 1).

**Table 1: Dust Monitoring Licence Requirements**

Stations	Parameter (mg/m <sup>2</sup> /day)	Monitoring frequency	Analysis Method/ Technique
A2-1, A2-2, A2-3, A2-4	Total Dust Deposition	Annually <sup>Note1</sup>	Bergerhoff Gauge <sup>Note2</sup>
	Metal content <sup>Note3</sup>	Annually <sup>Note4</sup>	Standard method

Note 1: During the period May to September, or otherwise specified in writing by the Agency.

Note 2: Standard VDI 2119 (Measurement of dustfall, Determination of dustfall using Bergerhoff Instrument (Standard Method) German Engineering Institute). Any modifications to eliminate interference due to algae growth in the gauge should be reported to the Agency.

Note 3: Analysis to include the following metals: Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb and Zn.

Note 4: Biannually in the first twelve months following grant of licence.

Weather conditions can have a notable impact upon dust creation and entrainment in the air and these have to be taken into account when assessing dust monitoring results.

The dust monitoring was conducted during normal activity at the facility. The period of monitoring was a typical operational month at KMK with unsettled wind conditions, below average temperatures and below average rainfall (compared to the long term averages [LTAs]). Hence the climatic conditions for dust creation and movement was favourable. Dust monitoring around the boundaries of the KMK site during the monitoring period showed that one dust deposition result was slightly above the EPA recommendation limit of 350mg/m<sup>2</sup>/day. This was in E area; A2-1 at 377.1 mg/m<sup>2</sup>/day compared to the licence ELV of 350 mg/m<sup>2</sup>/day.

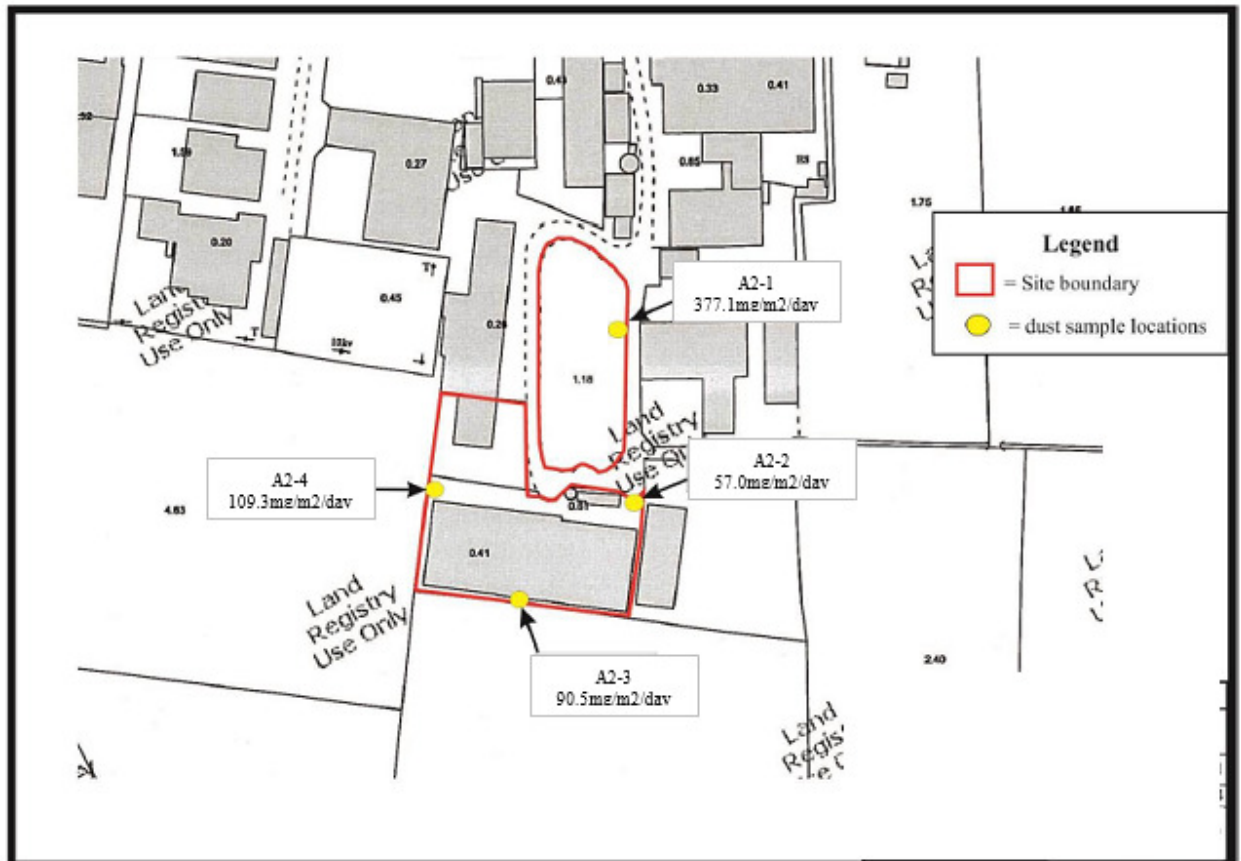
The E yard area sees a significant amount of HGV throughput as vehicles weigh-out over the weighbridge through this yard. The yard is also used for skip drop off and collection and by forklifts when transporting WEEE components to storage areas. This regular movement of vehicles rises dust which otherwise is not obviously noticeable on the yard. The site keeps the E yard area in a tidy state and the yard is swept frequently to maintain a clear

thoroughfare for vehicles. In addition, the predominant wind direction in the area is from the south west, which will blow dust in the direction of dust monitoring location A2-1.

The result for A2-1 of 377.1 mg/m<sup>2</sup>/day is a significant improvement when compared to the result for this location for July 2014 which was 492 mg/m<sup>2</sup>/day. The dust monitoring station A2-1 is located at E yard inside the precast concrete boundary wall which is approximately 0.5m higher than the top of the dust gauge. The high retaining wall acts as a barrier to dust moving off-site and will reduce dust levels further. Therefore, ambient dusts are effectively mitigated from causing nuisance conditions off-site. The industrial estate in which the site is located also experiences other commercial users with traffic and deliveries and therefore is accustomed to a commercial/ industrial environment. Furthermore, there are no dwellings or other sensitive locations in the immediate vicinity of the site.

The summary of dust deposition results are presented in Figure 1, below.

Figure 1 shows the location of each of the stations and total dust deposition results



In addition to Total Dust Deposition, metals are also analysed during this dust monitoring event. There are no Emission Limit Values specified for the metals content in the licence. Results of metal sampling show that all metals in the dust samples collected are very low. Results for all samples are broadly similar.

## 2.2 Stack Emission Point Monitoring.

The Waste Licence requirements for stack emission monitoring are presented in Table 2 below.

**Table 2: Licence Requirements for Stack Monitoring**

Emission point ref no.	Parameter	Monitoring frequency	Analysis Method/Technique
A2-5	Total particulates and metals including Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb and Zn	Quarterly	Standard Methods

Monitoring of A2-5 was performed over four separate monitoring events during 2015: Q1, Q2, Q3 and Q4.

The plant was in use during monitoring, and the samples were taken as discharged from the emission stack after treatment by the bag house filter unit.

The individual monitoring reports were submitted separately to the EPA. A summary of the reports is provided below (Table 3) in terms of dates and total particulate results obtained.

**Table 3: Stack Monitoring Results 2015**

Date	Company	Ref	Result (mg/m <sup>3</sup> )	Limit Value (mg/m <sup>3</sup> )
19/03/15	Glenside Environmental	Q1	0.58	10
29/04/15		Q2	<0.49	10
11/08/15		Q3	<0.47	10
29/10/15		Q4	<0.5	10

As can be seen from Table 3, results are low throughout 2015, representing a consistent manner of air emissions treatment by the infrastructure on-site.

KMK will continue to conduct stack air emissions in accordance with the Waste Licence Requirements and make use of the continuous particulates monitoring probe as installed on stack A2-5 on 5th April 2013. The probe is pre-set to warn management (by an alarm system) in the event of any increase so that action may be taken prior to (and thus preventing) any breach of an Emission Limit Value.

Stack emissions continue to be consistently low and of minor significance.



### 2.3 Noise

The waste licence (W0113-04) requirements for the noise monitoring programme is referred to in Condition 6.11 and are presented in Table 4.

**Table 4: Summary of Noise Monitoring Licence Requirements**

Stations & grid ref	Parameter	Monitoring frequency	Analysis Method / Technique
NE001: 635847 725118 NE002: 635959 725004 NE003: 635870 724963 NE004: 635772 725046	L(A)eq [30 minutes], L(A) <sub>10</sub> [30 minutes], L(A) <sub>90</sub> [30 minutes] and 1/3 Octave Band Analysis	Annually	Standard Method <sup>Note1</sup>

Note 1: International Standards Organisation, ISO 1996 Acoustics – Description and Measurement of Environmental Noise. Parts 1,2 & 3.

Furthermore it is stated *‘The survey programme shall be undertaken in accordance with the methodology specified in the ‘Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)’ as published by the Agency.’*

Condition 6.11.2 states: *‘The licensee shall implement any noise attenuation measures as required by the Agency, having regard to the principles of BAT, to ensure compliance with the noise limits specified in this licence.’*

Schedule B.3 Noise Emissions tabulates the following:

Daytime dB L <sub>Ar,T</sub> <sup>note2</sup> (30minutes)	Evening time dB L <sub>Ar,T</sub> <sup>note2</sup> (30minutes)	Night-time dB dB L <sub>Ar,T</sub> <sup>note2</sup> (15-30minutes)
55	50	45 <sup>note1</sup>

Note 1: there shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.

Note 2: L<sub>Ar,T</sub> is defined as the Related Noise Level, equal to the L<sub>(A)eq</sub> during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.

Hence the following parameters were measured and reported: L<sub>(A)eq</sub>[30 minute], L<sub>(A)10</sub>[30 minute], L<sub>(A)90</sub>[30 minute] and 1/3 Octave Band analysis.

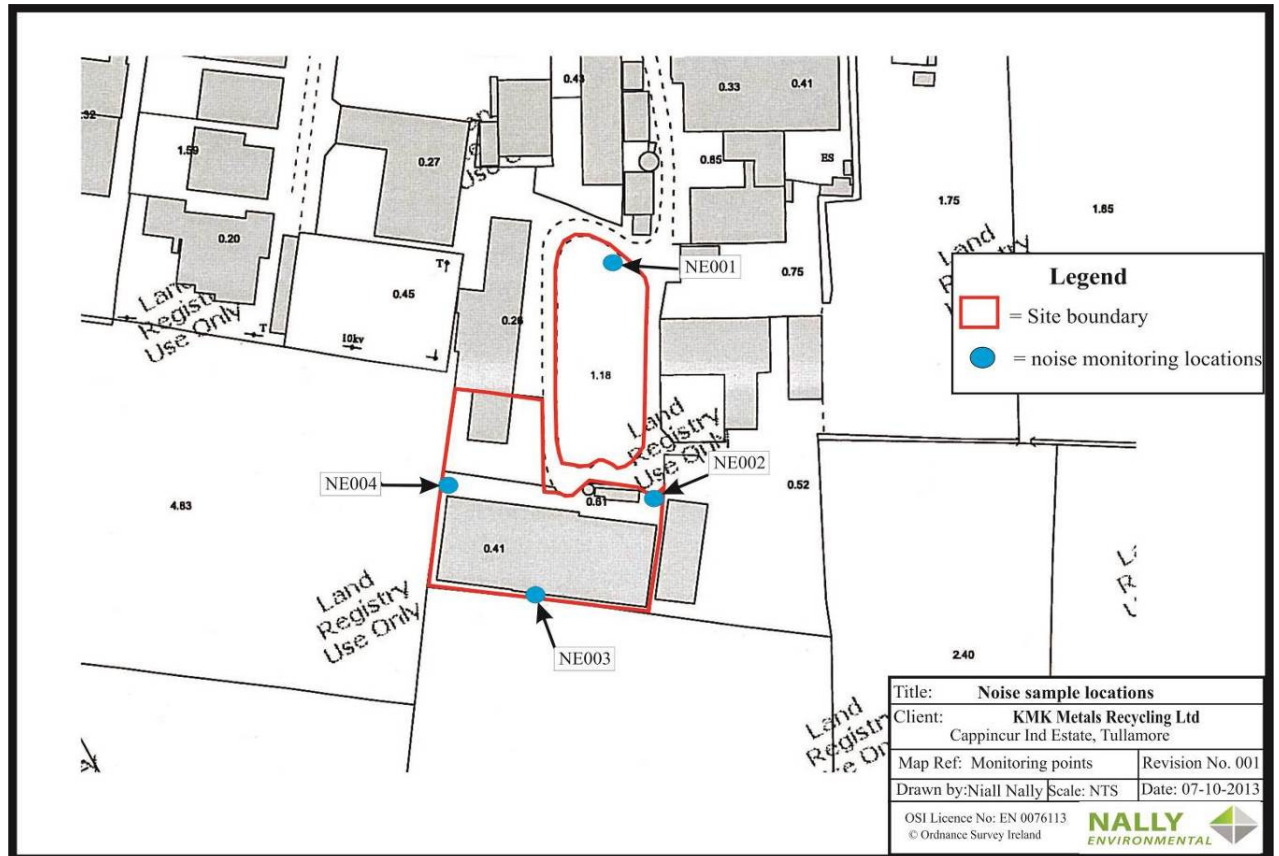
To ensure that all monitoring positions could be adequately monitored, and based upon normal best practice for noise measurements, as issued by the EPA, the night time measurement was a 15 minute period at each location.

The monitoring locations were thus as follows:

- NE001: Car park at fence boundary – northern boundary
- NE002: Eastern boundary, inside C yard
- NE003: Rear of the facility buildings – Southern boundary
- NE004: Adjacent the working yard area – Western boundary

Daytime noise monitoring took place on 24/07/15, between 11.00 – 15.15, evening monitoring took place on 28/07/15 between 19:40 – 21:40 and night time monitoring took place on 23/07/15 – 24/07/15 between 23:45 – 01.35. Each monitoring location is identified on the map shown in Figure 2 below. Weather conditions during monitoring were calm and mild with a slight breeze throughout the monitoring events.

**Figure 2: KMK Noise Monitoring Locations 2015**



The complete set of noise measurement results are included in the noise monitoring survey (Appendix 1). These are summarised and compared to the licence limits below in table 5.

**Table 5 – Compliance table of results with licence limits**

<b>Daytime</b>			
<b>Noise Location</b>	<b>Start Time</b>	<b>KMK <sup>note1</sup> L<sub>Ar,T</sub></b>	<b>Licence limits <sup>note2</sup> L<sub>Ar,T</sub></b>
NE001	11.06	66	55
NE001	11.46	55	55
NE001	12.16	57	55
NE001 Arithmetic Average		59	55
NE002	11.18	64	55
NE002	11.54	64	55
NE002	12.24	65	55
NE002 Arithmetic Average		69 <sup>note3</sup>	55
NE003	13.39	62	55
NE003	14.11	59	55
NE003	14.42	55	55
NE003 Arithmetic Average		59	55
NE004	12.50	63	55
NE004	13.21	62	55
NE004	13.54	59	55
NE004 Arithmetic Average		61	55
<b>Evening Time</b>			
<b>Noise Location</b>	<b>Start Time</b>	<b>KMK <sup>note1</sup> L<sub>Ar,T</sub></b>	<b>Licence limits <sup>note2</sup> L<sub>Ar,T</sub></b>
NE001	19:41	52	50
NE002	19:50	57	50
NE003	20:38	56	50
NE004	21:05	59	50

**KMK METALS RECYCLING LTD**  
ANNUAL ENVIRONMENTAL REPORT

<b>Night Time</b>			
<b>Noise Location</b>	<b>Start Time</b>	<b>KMK <sup>note1</sup> L<sub>Ar,T</sub></b>	<b>Licence limits <sup>note2</sup> L<sub>Ar,T</sub></b>
NE001	23.49	41	45
NE001	00.10	41	45
NE001 Arithmetic Average		41	45
NE002	23:56	39	45
NE002	00:12	38	45
NE002 Arithmetic Average		39	45
NE003	00.42	44	45
NE003	00.57	41	45
NE003 Arithmetic Average		43	45
NE004	00:30	41	45
NE004	01.49	40	45
NE004 Arithmetic Average		41	45

Note1: L<sub>Ar,T</sub> is defined as the Related Noise Level, equal to the L<sub>(A)eq</sub> during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.

Note2: the licence does not specify whether the limits apply to the site boundaries or noise sensitive locations.

Note3: Value after adjustment by adding 5dB to the LAeq due to tones or impulsive noise.

Noise sources from the facility, audible at the site boundaries have been identified as:

- Vehicles entering/leaving the site
- Unloading and loading of trucks with waste materials and processed materials using fork lift trucks, JCB etc
- Tipping of WEEE under cover in the Hanger building
- Reversing alarms from forklift trucks
- WEEE processing operations within buildings.
- Personnel entering/leaving buildings, car park area

During the **Daytime** measurements, maximum noise levels of L<sub>Aeq(30 minute)</sub> varied between 55-66dB at boundary locations. The highest levels were noted at station NE002 (64, 64 and 65dB) on consecutive occasions. The elevated levels were as a result of the loading of a lorry with a forklift 5 metres from the monitoring location and from general WEEE handling and dismantling.

Station NE001, located on the northern boundary, had noise levels L<sub>Aeq(30 minute)</sub> ranging from 55-66 dB during the day. There was a lot of intermittent noise present at this location, caused by on-site and off-site traffic, the handling of WEEE on-site and the operation of a power washer and movement of lorries at Ravenhill couriers adjacent to this monitoring location.

Station NE003, located on the south boundary behind the D-Hanger building, resulted in  $L_{Aeq(30 \text{ minute})}$  values ranging from 55-62 dB during the day. Noise was dominated here by the nearby dust extraction system used to treat dusts from the WEEE processing building and also noise from materials being processed inside the same building. There was also audible background noise coming from traffic on the nearby Tullamore by-pass at this location.

Station NE004, located on the west boundary, resulted in  $L_{Aeq(30 \text{ minute})}$  values ranging from 59-63 dB during the day. Noise was dominated here by typical site activities; processing and handling of WEEE in D-Hanger, moving forklifts and reversing alarms. Off-site road traffic noise from the Tullamore by-pass and the Ballinagar road was also audible.

The **evening time** measurements resulted in  $L_{Aeq(30 \text{ minute})}$  values ranging from 52-59 dB which were generally lower than the daytime readings. The highest  $L_{Aeq(30 \text{ minute})}$  was at station NE004 at 59 dB and the noise here was due to site activities such as processing and handling of WEEE in D-Hanger, the loading of fridges in D yard, and from road traffic on the Tullamore by-pass. The lowest was at station NE001 where an  $L_{Aeq(30 \text{ minute})}$  of 52 dB was measured i.e. furthest away from site activities during the measurement period.

The **night-time** measurements resulted in  $L_{Aeq(30 \text{ minute})}$  values ranging from 38-44 dB. The highest noise level in  $L_{Aeq(15 \text{ minute})}$  was 44dB at NE003 boundary location whilst the lowest noise level in  $L_{Aeq(15 \text{ minute})}$  was 38dB at NE002 boundary location. There were no site activities noted during the night time measurements. NE003 was directly dominated by background traffic noise on the Tullamore by-pass.

In general, the exceedences at boundary locations are not likely to be experienced at any noise sensitive location near the site due to noise dissipation over increasing distances and mitigation as a result of buildings acting as noise reduction barriers (the closet dwelling house to the facility is located 200m from the northern boundary of the site). For point sources it is known that a doubling of the distance away from the source results in a 6 dBA fall in noise level. An example of this is shown in the following table:

**Table 6 Attenuation of Noise over Distance for point source emissions e.g. industrial sources**

Distance (m)	Noise Level (dB)
5	65
10	59
20	53
40	47
80	41
160	35

1/3 Octave analysis (analysis of recorded sound pressures to identify if tonal features are present) was carried out on the same day. There were some isolated tones identified during the survey. These are summarised in the following Table 7.

**Table 7: Tonal Features Identification**

<b>Monitoring Station</b>	<b>Day-time Tonal Features (Frequency &amp; Pressure)</b>	<b>Evening-time Tonal Features (Frequency &amp; Pressure)</b>	<b>Night-time Tonal Features (Frequency &amp; Pressure)</b>	<b>Comments</b>	<b>Rating level (<math>L_{ar,T}</math>) as adjusted by adding 5dB to the relevant <math>L_{Aeq}</math></b>
NE001	No identified tones	No identified tones	No identified tones	No tones identified	Not applicable
NE002	49.8dB at 3.15kHz	No identified tones	No identified tones	The tone identified during day-time monitoring was as a result of a forklift operating nearby.	69dB
NE003	No identified tones	No identified tones	No identified tones	No tones identified	Not applicable
NE004	No identified tones	No identified tones	No identified tones	No tones identified	Not applicable

In conclusion;

- Annual environmental noise monitoring occurred at KMK on 23<sup>rd</sup>, 24<sup>th</sup>, and 28<sup>th</sup> of July 2015.
- 4 boundary locations were assessed as per licence requirements.
- Activities at the KMK facility were deemed normal throughout the day.
- The general acoustic environment at and around the facility is dominated by facility operations, off-site activities within the industrial estate due to neighbouring commercial premises and the Tullamore by-pass road and Ballinagar road.
- The noise measured in  $L_{Aeq}$  at all boundary locations exceeded the licence requirements (Schedule B3) for day time and evening time noise levels. All night-time noise readings at Boundary Noise Locations were below the licence requirements. These exceedances are not likely to be experienced at any of the closest dwellings near the site due to noise dissipation over increasing distances and mitigation as a result of buildings acting as noise reduction barriers.
- There was tonal noise identified at NE002 as follows;
  - During the day time measurement, a tone was identified at NE002 as a result of a forklift operating nearby.

## 2.4 Surface Water and Wastewater emissions

The requirements for the sanitary effluent water discharge monitoring are as follows:

**Table 8: Wastewater Monitoring Licence Requirements**

Locations	Parameter	Monitoring frequency	Analysis Method/ Technique
F	Flow	Continuous	On-line flow meter with recorder
F	BOD, Suspended solids, total dissolved solids, nitrates (as N), ammonia (as N), total phosphorous (as P)	Quarterly	Standard Methods

Similarly, the waste licence requirements for storm water monitoring are as follows:

**Table 9: Storm Water Monitoring Licence Requirements**

Locations	Parameter	Monitoring frequency	Analysis Method/ Technique
CX DX E	Visual inspection	Daily	Examine for colour and odour
CX DX E	pH, COD, Ammonia, Conductivity, Suspended solids, Mineral oils, Metals (Al, As, Cr, Cu, Fe, Hg, Ni, Pb, Zn)	Quarterly	Standard Methods

Following approval from the Agency on the 2nd April 2015, a new Class 1 interceptor was installed in September 2015 to replace the existing DX and CX interceptors. Storm water run-off from both C and D yards now passes through the new interceptor and discharges via emission point DX. Discharges from CX outlet has now ceased at the site.

The Water Discharge Monitoring Reports were submitted separately to the EPA. The sampling dates and discharge points are shown in table 10 below.

**Table 10: Storm Water and Wastewater Monitoring Summary**

Date	Sample taken				Laboratory
	CX	DX	E	F	
16/02/15	Yes	Yes	Yes	Yes	Alcontrol Laboratories
30/04/15	Yes	Yes		Yes	Alcontrol Laboratories
03/06/15			Yes		Alcontrol Laboratories
10/11/15	N/A	Yes	Yes	Yes	Alcontrol Laboratories
25/11/15	N/A			Yes	Alcontrol Laboratories
07/12/15		Yes	Yes		Alcontrol Laboratories

The sanitary effluent water discharge monitoring (F sample) for all parameters applicable under the licence and compared to the emission limit values are detailed in Table 11.

**Table 11: Waste Water Monitoring Results**

Sample Date	16/02/15	30/04/15	10/11/15	25/11/15	Emission Limit values (ELVs)
Parameter	F	F	F	F	
Total dissolved solids (TDS) (mg/l)	1060	2270	601	2870	-
Suspended Solids (mg/l)	45.5	2.5	<2	<2	-
BOD (mg/l)	2.32	<1	<1	<1	5
Ammonia as N (mg/l)	2.34	1.24	0.0446	0.046	1
Nitrates as N (mg/l)	76.7	69.2	38.7	69.4	-
Total phosphorous as P (mg/l)	0.847	1.36	2.02	1.59	1



**Table 12: Storm Water Monitoring Results**

Date		16/02/15			30/04/15	03/06/15	30/04/15	10/11/15		07/12/15		Emission Limit values (ELVs)
Parameter	Units	CX	DX	E	CX	DX	E	DX	E	DX	E	
Suspended Solids	mg/l	2	86	<2	<2	88	<2	20	11.5	43.5	112	35
Ammonia as N	mg/l	0.782	0.94	0.471	0.0291	2.31	0.373	1.24	0.936	0.112	0.216	-
COD	mg/l	<7	154	21.2	<7	151	20.9	60.1	64.6	39.1	78.5	-
Conductivity	mS/cm	0.218	1.07	0.266	0.215	1.39	0.184	0.619	0.352	0.395	0.12	-
Aluminium	ug/l	12.9	73	78.2	11.9	33.1	173	190	64.1	35.8	89.1	-
Arsenic	ug/l	0.277	1.15	0.555	0.163	1.33	1.6	1.83	1.23	0.879	0.262	-
Chromium	ug/l	0.868	1.05	0.506	1.17	2.39	0.913	1.33	1.84	1.79	0.883	-
Copper	ug/l	6.12	11.7	8.41	4.28	1.84	5.53	10.7	33.4	10.4	10.9	-
Lead	ug/l	5.6	16	3.81	2.54	2	2.32	17.8	38.2	4.73	20.9	-
Nickel	ug/l	5.78	22.2	5.89	2.76	21.4	2.79	15.6	13.5	6.07	3.57	-
Zinc	ug/l	239	41.9	37.8	142	7.23	11.1	31.5	202	115	45.9	-
Mercury	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0368	<0.01	<0.01	-
Iron	mg/l	0.261	0.309	0.0379	<0.019	0.0813	0.107	0.143	0.225	0.0404	0.0765	-
Mineral Oil	mg/l	<1	7.74	<1	<1	6.74	<1	<1	1.78	<1	8.95	-
pH	pH units	7.8	7.65	7.72	7.96	7.63	8.8	8.71	7.54	7.95	8.17	2

### **Interpretation of Quarterly Results 2015**

Discharges from CX were below the license emission limit values during all monitoring periods in 2015. Suspended Solids and Mineral Oil levels at E were above the emission limit values during the December monitoring periods in 2015. Suspended Solids levels at DX were above the emission limit values during the February, June, and December monitoring periods in 2015. Mineral Oil levels at DX were also above the emission limit values during the February and June monitoring periods in 2015.

The exceedances at E were as a result of the lack of maintenance of E interceptor. ENVA inspected, desludged and cleaned E Interceptor on the 14/01/16. A sample of discharge E was then collected on 01/02/16 and analysed by the laboratory. The laboratory test results showed a significant reduction in Suspended Solids and Mineral oil levels and the results fell below the ELV's of the licence.

The exceedances at DX in February and June were prior to the installation of the new interceptor. A new Class 1 interceptor was installed in September 2015 to replace the existing DX and CX interceptors. Storm water run-off from both C and D yards now passes through the new interceptor and discharges via emission point DX. There was a slightly elevated result recorded at DX in December. Subsequently, a sample of DX was collected on the 25/01/16 and analysed for Suspended Solids to determine if emission levels had reduced. The laboratory test results showed a significant reduction in Suspended Solids levels and the results fell below the ELV's of the licence.

A maintenance contract is in place with an outside company to periodically visit KMK and inspect the interceptors and validate their operations so as to ensure that they are working correctly and efficiently.

The new WWTS & biofilter on-site was fully installed and commissioned in November 2013. This replaced the percolation area which was removed. The results for Total Phosphorous and Ammonia were above the license emission limit values during all monitoring periods in 2015 with the exception of Ammonia levels during the 3<sup>rd</sup> and 4<sup>th</sup> Quarter monitoring events and Total Phosphorous during the 1<sup>st</sup> Quarter monitoring event. A delicate balance of Ferric Chloride dosing in the WWTS was carried out throughout 2014 and 2015 in order to reduce Total Phosphorous levels below the license emission limit value. However, the increase in Ferric Chloride dosing to reduce Total Phosphorous levels has resulted in an increase in Ammonia levels. It is clear that the delicate balance of dosing that has been practiced in the WWTS is not effective at maintaining Ammonia and Total Phosphorous within license limit values. The site applied for a Technical Amendment to Schedule B.2 of their licence on 15<sup>th</sup> of February 2016. The proposed amendment relates to the parameters and the Emission Limit Values set in Schedule B.2 for Emission Point Reference No: F (treated sanitary waste water). A technical amendment is essential in order to resolve this continual breach.

## 2.5 Groundwater

KMK has two wells: GW1 and GW2, both of which are tapped onsite and were sampled on 07<sup>th</sup> of December 2015. The full Annual Groundwater Monitoring Report 2015 was submitted separately to the EPA.

Groundwater monitoring of GW1 and GW2 wells onsite was carried out in accordance with parameters listed in Schedule C.7 of waste licence W0113-04 and the hazardous substances identified in the Groundwater Monitoring Risk Assessment Report 2014.

**Table 13: Groundwater Monitoring Licence Requirements**

Ref	Parameters	Monitoring frequency	Analysis Method / Technique
GW1 GW2	pH, Conductivity, groundwater level, total faecal coliforms, total nitrogen, chloride, hydrocarbons screen (mineral oils/DROs) and Metals (Al, As, Cd, Cr, Cu, Fe, Hg, Ni, Pb, Zn)	Annually	Standard Methods

All results were below the recommended guideline limits set by EC Groundwater Regs. S.I. 9/2010 and the EC Drinking Water Guideline SI 278/2007, with the exception of Nickel (21.9µg/l) and Arsenic (23.7µg/l) at GW2– both of which are known to be in soils and rock naturally.

Nickel is present in soils naturally, and has been found in KMK samples since 2006 (with the exception of 2009 and 2012). According to the ‘Soils of Co. Offaly’ National Soil Survey of Ireland by Teagasc 2003, the typical levels of trace nickel in agricultural soils ranges from 0.5 to 100 mg/kg. The natural occurrence of arsenic in rock veins is also well documented across the world. In the absence of specific data for arsenic in Offaly, another close licensee was reviewed in terms of their groundwater monitoring i.e. AES Ireland Ltd, Cappincur Ind. Estate, Tullamore. It was noted in their 2012 and 2014 AER that arsenic was also found in one of their boreholes GW2. Both boreholes are approximately 300m apart. This presence confirms naturally occurring arsenic in the groundwater because the levels are very similar and yet the two associated businesses are very different i.e. AES operates a general waste transfer and recycling station and KMK operates a metals and WEEE Recycling facility.

### **3.0 WASTE ACTIVITIES CARRIED OUT AT THE FACILITY**

The principal class of activity is:

*Class 13 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): 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.*

Non Technical Description: Temporary storage and processing of waste materials at the facility prior to removal off site for further metals recovery at an alternative facility.

Consequently, other activities carried out on site include:

*Class 3 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): Recycling or reclamation of metals and metal compounds.*

Non Technical Description: Collection, acceptance and processing of metallic wastes (hazardous and non hazardous including electronic and electrical wastes and liquids containing dissolved metals) as part of waste loads arriving at the facility prior to removal off site for recycling or recovery.

*Class 4 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): Recycling or reclamation of other inorganic materials.*

Non Technical Description: Acceptance of plastic components and packaging as part of incoming waste loads.

*Class 6 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): Recovery of components used for pollution abatement.*

Non Technical Description: Acceptance of auto catalysts, filters etc.

*Class 7 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): Recovery of components from catalysts.*

Non Technical Description: Recovery of metals from catalysts in manufacturing processes (this applies to liquids and solids)

*Class 11 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): Use of waste obtained from any activity referred to in a preceding paragraph of this schedule.*

Non Technical Description: Re-use of some waste materials e.g. metal drums, IBCs, cardboard boxes and textile IBC bulk bags as waste receptacles.

*Class 12 of the Fourth Schedule (Waste Recovery Activities) of the Waste Management Act (1996): Exchange of waste for submission to any activity referred to in a preceding paragraph of this schedule.*

Non Technical Description: Trading activities in waste management.

#### **4.0 QUANTITY AND COMPOSITION OF WASTE RECOVERED, RECEIVED AND DISPOSED OF DURING THE REPORTING PERIOD INCLUDING EWC CODES**

This specific and detailed information is presented in Appendix 2 of this report.

#### **5.0 WASTE MANAGEMENT RECORD**

##### **5.1 Waste Received in 2015**

Waste is received in the KMK facility from the following sources: civic amenity sites, commercial customers, industrial customers, transfer station waste management sites, and gate customers. A summary of all waste received during 2015 is given below:

**Table 14: Summary of Waste Received in 2015**

<b>Source of waste accepted.</b>	<b>Total quantities (tonnes)</b>
Civic amenity sites	8,780.568
Commercial	10,310.576
Industrial	3,311.788
Transfer Stations	3,057.129
Gate Customers	169.277
<b>Total</b>	<b>25,629.338</b>

A full breakdown of waste types and quantities accepted for 2015 is included in Appendix 2 attached to this AER.

The total quantity received was 25,629.338 tonnes for 2015.

##### **5.2 Waste Despatched from the Facility for Recovery in 2015**

The total quantity of waste despatched from the facility in 2015 was 27,077.739 tonnes. A summary of all waste despatched during 2015 is included in Appendix 2 attached to this AER. Please note that there is a carry-over of waste material from the year ending 2015 into the beginning of 2016 (1,040.206 tonnes) and this is stock pending processing and stock pending dispatch (see Appendix 2).

#### **6.0 WASTE RECOVERY REPORT**

All waste accepted at KMK is treated for recovery and recycling. There is a 'no waste to landfill' policy on-site. KMK also acknowledges and complies with the most recent WEEE Regulations whereby recovery targets are calculated and achieved. See letter statement below.

**KMK METALS RECYCLING LTD**  
ANNUAL ENVIRONMENTAL REPORT



**KMK Metals Recycling Ltd.**

Precious and Non-Ferrous Metals  
Electronic Scrap & Metallic Residues  
Hazardous Metal Waste

Cappincur Ind. Est.  
Daingean Road  
Tullamore  
Co. Offaly  
Ireland

Telephone  
057-934 1634

Telefax  
057-932 2729

E-Mail  
info@kmk.ie

Website  
www.kmk.ie

EPA Waste Licence:  
W0113-04

January 2016

To whom it may concern,

I confirm that **KMK Metals Recycling Ltd** acts as your company's waste contractor for battery waste and electrical waste which we are authorised to accept.

Our facility at **Tullamore, Co Offaly** is licensed (**EPA Waste License No. W0113-04**) to accept and recover Waste Electrical & Electronic Equipment (WEEE) and batteries. Our license allows us to manage 35,000 tonnes of these waste streams per annum.

KMK confirms that we meet the conditions for the storage of WEEE as required by Article 21 (Sixth Schedule) of the WEEE Regulations.

With reference to Article 22 of the WEEE regulations, I can confirm that we comply with the Seventh Schedule and the requirements for the removal and selective treatment of certain substances, preparations and components, such as batteries, cathode ray tubes, external electric cables etc.

With reference to Article 23, KMK achieved the minimum recovery targets and minimum component, material and substance reuse and recycling targets for 2014 and expects to exceed same over the next three years.

Our current recovery rates are as follows:

<b>Category 1:</b>	<b>Large Household Appliances</b>	<b>82%</b>
<b>Category 1a:</b>	<b>Refrigeration Appliances</b>	<b>88%</b>
<b>Categories 2,4,6,7:</b>	<b>Small Electrical Appliances</b>	<b>92%</b>
<b>Category 3:</b>	<b>IT &amp; Telecommunication Equipment</b>	<b>92%</b>
<b>Category 3a &amp; 4a:</b>	<b>CRT (Televisions &amp; Monitors)</b>	<b>90%</b>
<b>Category 5:</b>	<b>Lighting (FL's and CFL's)</b>	<b>95%</b>
<b>Category 8,9:</b>	<b>Medical Devices &amp; Control Instruments</b>	<b>90%</b>
<b>Category 10:</b>	<b>Automatic dispenser</b>	<b>82%</b>
<b>Batteries Portable/Household</b>		<b>63%</b>
<b>Batteries Lead-Acid</b>		<b>99%</b>

We have a 'no-waste to landfill' policy, with any waste generated going to Waste to Energy facility in Ireland.

If I can be of any further help, please do not hesitate to contact me.

Kind regards,  
Kai Meyer  
  
**KMK Metals Recycling Ltd.**  
Works: Cappincur Industrial Estate  
Daingean Road, Tullamore, Co. Offaly  
Tel: 057 93 41634  
E-mail: info@kmk.ie

Prepared |  
Tel: 047 7

Registered Office: Cappincur Industrial Estate, Daingean Road, Tullamore, Co. Offaly  
Reg. No. 67176. VAT No. IE 4534857E

Directors  
K.M. Kyck  
E. Kloewer-Kyck  
NSAIF



In addition, KMK has achieved compliance with EN50625 WEEE Treatment Standard / the WEEELABEX Standard, which prescribes methods for conducting Batch Tests and for the subsequent Calculating Recycling and Recovery Targets.

## 7.0 RESOURCE CONSUMPTION SUMMARY

Electricity, green diesel and kerosene are used at the facility. The following tables summarise the electricity and fuel consumption at the facility from 2014 to 2015 inclusive and for comparison purposes.

**Table 15: Breakdown of the Energy Consumption for the Year**

	Consumption in kWh*					
	2014	% of total		2015	% of total	
Electricity	654520	37.94		687560	37.78	
Kerosene	49150	2.85		57934	3.18	
Diesel	1021345	59.21		1074520	59.04	
Total	1,725,015	100		1,820,014	100	
*Energy conversion factors 2015: kerosene 9.821kWh/l, diesel 10.169kWh/l						

In summary, the following trends are noted:

Electricity consumption in 2015 increased by 5% compared to 2014. Kerosene consumption increased by 18% and Diesel consumption increased by 5%. The reasons for this are that:

- The increase in electricity consumption in 2015 compared to 2014 can be attributed to two main factors a) the development of a second office space on the site in 2014 and b) due to a 5% increase in tonnage accepted to and processed at the site on 2015 compared to 2014.
- Kerosene is used for the heating of office space. The increase in kerosene consumption in 2015 compared to 2014 is due to the last delivery of kerosene in 2013 being delivered to the facility in December of 2013. The majority of this kerosene was consumed in 2014, however as the consumption levels are calculated from invoice records, hence giving a lower level of consumption in 2014. There was also a delivery of kerosene made to the site at the end of December 2015 and the majority of this kerosene would have been consumed in 2016. The 10% increase in kerosene use between 2013 and 2015 may be attributed to the development of a second office space on the site in 2014.
- The increase in diesel consumption in 2015 is due again to an increase in material intake and processing compared to that carried out in 2014. Due to this increase, especially with regard to Fridge Freezer and Large Household Appliance intake, both forklift and diesel baler operation use have increased. KMK van collections have also increased resulting in higher diesel consumption levels.



## **8.0 REVIEW OF NUISANCE CONTROLS**

The types of nuisances which could be expected at a Waste Management Facility in general are litter, vermin, birds, flies, mud, dust and odours.

Due to the dry solid and non-food related origin of materials recycled at KMK, the activities carried out onsite are not conducive to flies, birds, odours, and vermin - there are however canteens onsite, and associated businesses nearby, therefore KMK employs a pest control company to ensure rodents are controlled.

All waste processing activities are carried out within buildings; all materials prior to processing are not able to create a windblown nuisance (as they are solid / intact and too large to be blown), and all fractions generated by the activities of KMK are stored under cover.

All site surfaces are concreted for minimisation of dirt/dust onsite, however dust is entrained or deposited onsite and controls are in place in the form of yard dampening as necessary - as often as twice per day in summer time, plus KMK uses a road sweeper on smooth floor surfaces for example in the WEEE Plant. Dust monitoring around the boundaries of the KMK site during the 2015 monitoring event showed that one dust deposition result (A2-1 in July/ August) was slightly above the EPA recommendation limit of 350mg/m<sup>2</sup>/day.

Dust remains KMK's only evident nuisance requiring active control by employees of KMK, and control will continue throughout 2016 with additional effort being made during summer months.

## **9.0 SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS AND ENVIRONMENTAL MANAGEMENT PROGRAMME**

The schedule of Objectives and Targets / Environmental Management Programme for 2015 and their current status is included below in Table 16 as part of the company IMS. Most of the scheduled objectives and targets were achieved in 2015; some were carried forward and where this is the case a note is made to that effect in 'Status'.

A new schedule of objectives and targets / EMP proposed for year ending 2016 is also presented in Table 17.

**KMK METALS RECYCLING LTD**  
ANNUAL ENVIRONMENTAL REPORT

**Table 16: Environmental Objectives and Targets 2015**

ID	OBJECTIVES AND TARGETS	Timescale	Resp	Status
'14-E-2 / 15-1	Waste Classification and Records: Create a list of process inputs (with EWC) and fractions generated (as a % of the input) – based on WEEELABEX Batch Results. - Process flows updated to show incoming EWC codes and fractions resulting - Reptool populated to show same and resulting recycling / recovery rates	End 2015	CD / KM	Complete September 2015
14-E-1(1)	Interceptor Upgrade: upgrade required by Offaly CoCo for CX (so that all trafficked areas are serviced by Class I Interceptor) – because DX is not performing, KMK proposed to install one (larger) interceptor to receive both CX and DX storm water - EPA approval granted April 2015	Unknown.	CD & EPA + KK / MK	Complete September 2015
13-5	Energy Management Plan – drafted, to be implemented 2015	TBC	CD	Carried forward to 2016
13-3	Implement new Flatscreen Process (Currently on hold by Manufacturer.)	TBC.	CD + KK	Carried forward to 2016
<b>ENVIRONMENTAL</b>				
15-2	Ensure Emergency Response is drill on a 6 Monthly Basis – as per IMS Schedule. Template Drill Reports prepared	Jan & Jul for Fire; March & Sept for Accident & Spill.	CD	Complete January 2015
15-3	Review and update Non-Conformance procedure.	March 2015	CD	Complete October 2015
15-4	Link legal requirements to evaluation of compliance.	June 2015	CD	Complete November 2015
<b>QUALITY</b>				
15-5-1	Update the <i>Internal Audit Procedure</i> to reflect current practices and document procedure for the follow up of audit findings / issues raised.	May 2015	CD	Complete August 2015
15-5-2	Prepare an Internal Audit Schedule to schedule auditing as per procedure	May 2016	CD	Carried forward to 2016
<b>SAFETY</b>				
15-6	Audit work instructions regarding new ADR rules for Damaged Lithium Cells applicable from January 2015 and mandatory from July 2015 to ensure compliance to new rules.	Sept 2015	CD	Complete November 2015
15-7	Update Control of Records Procedure to more specifically define types of records required to be held & retention time, + back-up of records (server back-up).	May 2015	CD	Complete August 2015

**KMK METALS RECYCLING LTD**  
ANNUAL ENVIRONMENTAL REPORT

**Table 17: Environmental Objectives and Targets 2016**

<b>ID</b>	<b>OBJECTIVES AND TARGETS 2016</b>	<b>Timescale</b>	<b>Resp</b>	<b>Status</b>
13-5	Energy Management Plan – drafted, to be implemented 2016	October 2016	<b>CD + OB</b>	
13-3	Implement new Flatscreen Process (Currently on hold by Manufacturer.)	TBC.	<b>CD + KK</b>	
15-5-2	Prepare an Internal Audit Schedule to schedule auditing as per procedure	May 2016	<b>CD</b>	
<b>ENVIRONMENTAL</b>				
16-E-1	Waste Tracking – Prepare full material flow record as per WEEELABEX requirement to ensure material traceability to End-of-Waste status	September 2016	<b>CD + KK</b>	
16-E-2	Prepare compliance checklists to coincide with information held within on-line EHS Legal Register	July 2016	<b>CD</b>	
16-E-3	Prepare subcontracted Waste Collection Permit Holders overview to include annual insurance details, WCP expiry dates and permitted EWC codes	October 2016	<b>CD</b>	
16-E-4	Update Material Outlet Register to include annual insurance details, Facility Permit License / Permit details, Certification expiry dates and permitted EWC codes	September 2016	<b>CD + KS</b>	
<b>QUALITY</b>				
16-Q-1	Review and update process flow diagrams for all WEEE fractions entering KMK	May 2016	<b>CD + RH</b>	
16-Q-2	Prepare and distribute Customer Satisfaction Surveys	May 2016	<b>CD + KK</b>	
16-Q-3	Prepare Customer KPI Register	September 2016	<b>CD</b>	
<b>SAFETY</b>				
16-S-1	All staff training & inductions to be updated and reviewed to ensure all operators are inducted and trained in all areas on site.	July 2016	<b>RH</b>	
16-S-2	General Site Induction to be introduced and checklists to be designed for Shift Supervisors to sign off on for area specific training.	July 2016	<b>RH</b>	
16-S-3	Install improved fire extinguisher units in battery process area and in the WEEE Plant for damaged batteries	March 2016	<b>RH</b>	
16-S-4	Increase in Accident/Incident Reporting with a view to reducing the number of accidents occurring from repetitive causes	December 2016	<b>RH</b>	

## **10.0 POLLUTANT RELEASE AND TRANSFER REGISTER – REPORT FOR PREVIOUS YEAR**

The PRTR report is specifically generated every reporting year using the EPA Guidance to completing the PRTR excel based workbook. The content of the PRTR for KMK is quite minimal in that the waste activity only has to enter in data for: 1) general facility data 2) emissions to air and 3) onsite treatment and off-site transfers of waste. KMK also have obtained a confidentiality status in relation to off-site waste transfer outlets (recovery and disposal) from the EPA since 2010 and therefore is not required to give actual names and addresses of such final transfer facilities.

The full PRTR report for 2015 forms Appendix 3 of this AER report.

## **11.0 POLLUTANT RELEASE AND TRANSFER REGISTER – PROPOSAL FOR CURRENT YEAR**

KMK's reportable PRTR is generally similar from year to year and emissions are confined to air media for the facility, hence there is no requirement to generate any actual PRTR proposal for the forthcoming year (which differs from IPPC licensees).

## **12.0 NOISE MONITORING REPORT SUMMARY**

A summary of the noise monitoring for 2015 on-site is presented in Section 2.3 of this AER and the full noise monitoring report is in Appendix 1.

## **13.0 AMBIENT MONITORING REPORT SUMMARY**

A summary of the ambient dust monitoring for 2015 on-site is presented in Section 2.1.

## **14.0 TANK AND PIPELINE TESTING AND INSPECTION REPORT**

### **14.1 Bund Assessments.**

A full assessment of the bunds storage structures was completed by Nally Environmental between the 22<sup>nd</sup> and 25<sup>th</sup> February 2013; the full report was included in the 2013 AER report.

### **14.2 Pipeline inspections and testing**

Integrity Testing of Storm and Foul underground lines was carried out in 2014. CCTV surveys following repairs was also carried out and these reports were included in the 2014 AER report. A Status Report was also included in the 2014 AER report. which shows the Integrity Test Status of underground lines on site. KMK Recycling planned to carry out repairs to the underground lines that failed the integrity test during the installation of the new interceptor for CX and DX yards. However, the new interceptor was not installed until late in 2015. Therefore, the repair works have been scheduled for May 2016. Integrity testing of the repaired underground lines will be detailed in the AER for year ending 2016.

### 15.0 REPORTED INCIDENTS SUMMARY

There were three Category 1 reportable incidents during 2015 at the facility, summarised below

**Table 18: Incidents Report Table during 2015**

<b>Alder Ref no</b>	<b>Incident reported date</b>	<b>Incident cause/description</b>	<b>Summary of Actions throughout the course of this incident history.</b>	<b>Incident Status</b>
009179	10/11/2015	Breach of ELVs as follows; F discharge outlet from WWTP sand filter; Total Phosphorous as P result - 2.02mg/l and the ELV is 1mg/l.	No corrective action proposed as the delicate balance of dosing that has been practiced is not effective. The site has been carrying out sampling of the foul water on a weekly basis in November in order to gather sufficient sample data to gain a better estimate of the levels of Ammonia and Orthophosphate in the discharge. The site will apply for a Technical Amendment to Schedule B.2 of their licence in January 2016. The technical amendment will relate to the parameters and the Emission Limit Values set in Schedule B.2. A technical amendment is essential in order to resolve this continual breach.	Closed
009182	25/11/2015	Breach of ELVs as follows; F discharge outlet from WWTP sand filter; Total phosphorous as P result - 1.59mg/l and ELV is 1mg/l. No other ELV breaches.	No corrective action proposed as the delicate balance of dosing that has been practiced is not effective. The site has been carrying out sampling of the foul water on a weekly basis in November in order to gather sufficient sample data to gain a better estimate of the levels of Ammonia and Orthophosphate in the discharge. The site will apply for a Technical Amendment to Schedule B.2 of their licence in January 2016. The technical amendment will relate to the parameters and the Emission Limit Values set in Schedule B.2. A technical amendment is essential in order to resolve this continual breach.	Open

**KMK METALS RECYCLING LTD**  
ANNUAL ENVIRONMENTAL REPORT

Alder Ref no	Incident reported date	Incident cause/description	Summary of Actions throughout the course of this incident history.	Incident Status
009443	07/12/2015	Breach of ELVs as follows for CDX and E storm water outlets. CDX Total suspended solids grab sample result of 43.5mg/l and the ELV is 35mg/l on 07/12/15. E Total suspended solids grab sample result of 112mg/l and the ELV is 35mg/l, and E Mineral Oil grab sample result of 8.95mg/l and the ELV is 2mg/l on 07/12/15.	<p>ENVA to inspect, desludge and clean E Interceptor on the 14/01/16. This interceptor was last inspected on the 26/06/15 and last deslugged/ cleaned on 15/01/14. A sample of discharge E will be collected and analysed 6 weeks following the desludging of the interceptor in order to determine if emission levels have reduced following the settlement period. BMS to inspect CDX interceptor on 14/01/16 to determine if it is operating effectively. A sample of discharge E will be collected on the 12/01/16 and analysed for Suspended Solids to determine if emission levels have reduced.</p> <p>ENVA inspected, deslugged and cleaned E Interceptor on the 14/01/16. A sample of discharge E was then collected on 01/02/16 and analysed by the laboratory. The laboratory test certificate is attached and the results for Suspended Solids and Mineral oil have significantly reduced and now fall below the ELV's of the licence. BMS inspected CDX interceptor on 14/01/16 to determine if it is operating effectively. Subsequently, a sample of discharge DX was collected on the 25/01/16 and analysed for Suspended Solids to determine if emission levels have reduced. The laboratory test certificate is attached and the results for Suspended Solids have also significantly reduced and now fall below the ELV's of the licence.</p>	Closed

All incidents will continue to be addressed in a timely manner and reported using the EDEN online reporting portal system, as adopted by the EPA, and in accordance with Guidance and Waste Licence requirements on same.

## 16.0 COMPLAINTS SUMMARY

There were no complaints received at KMK during 2015 for the facility.

## 17.0 ENERGY EFFICIENCY AUDIT REPORT SUMMARY

Please refer to Section 7 of this report for energy usage data and information.

Whilst the energy usage has increased from 2014 values, the reason for this is the increased recycling on-site hence reduced export of activities which are now carried out in Ireland. If this is considered on a broader basis the increased energy used by KMK is off-set against a) the increase in energy that would have been used at an alternative facility in order to further recover the materials from the waste inputs, and b) the reduction in emissions created by haulage (material is more uniform and smaller in particle size hence loads are more efficient) – therefore, the increased energy consumption is positive for Irelands economy and the wider environment.

## 18.0 VOLUME OF TRADE EFFLUENT/LEACHATE AND/OR CONTAMINATED STORMWATER PRODUCED AND VOLUME TRANSPORTED OFF-SITE

There is no trade effluent or leachate produced at KMK.

In terms of stormwater, this is discharged off-site via DX and E outlets. The site interceptors are routinely emptied and maintained throughout the year and the following off-site disposals of same occurred during 2015:

**Table 19: Storm Water Transported Off-Site**

No. of collection events	Ref	EWC	Description	Quantity (Kg)
3	CX, DX & E Interceptors	13 05 08*	Interceptor and associated drains contents, jetting & washing cleanings and silts removal	February: 2480 April: 2100 July: 12460  Total: 17040

**19.0 REPORT ON THE ASSESSMENT OF THE EFFICIENCY OF USE OF RAW MATERIALS IN PROCESSES AND THE REDUCTION IN WASTE GENERATED.**

The raw materials used at KMK for the recycling process are metallic and WEEE waste inputs. Please refer to Section 6 previously for information relating to the recovery efficiency of KMK's activities.

KMK does not landfill; all residual wastes are sent for recycling (for example Timber Waste and Dry Recyclables) or energy recovery (only those wastes which are not clean / dry recyclables and which are unsuitable for recycling).

**20.0 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MINIMISE WATER DEMAND AND THE VOLUME OF TRADE EFFLUENT DISCHARGE.**

This section is not applicable to KMK as there is no trade effluent discharge from the facility in 2015.

**21.0 DEVELOPMENT / INFRASTRUCTURAL WORKS SUMMARY (COMPLETED IN PREVIOUS YEAR OR PREPARED FOR CURRENT YEAR).**

Any relevant such works are already presented Section 9 of this report.

**22.0 REPORT ON THE FINANCIAL PROVISION MADE UNDER THIS LICENCE, MANAGEMENT AND STAFFING STRUCTURE OF THE FACILITY, AND A PROGRAMME FOR PUBLIC INFORMATION.**

- Financial Provision: KMK confirms that adequate financial provisions are in place for all proposed environmental improvements and controls for the forthcoming year and thereafter. In particular, KMK has 'Pollution Liability' of €6.5 million included in their company insurance document. This is more than adequate to cover any pollution incidence of environmental significance as requested in the Environmental Liability Directive.

In addition, the operator has prepared a Decommissioning Management Plan (DMP) in accordance with Condition 10 of the licence. The methodology for the development of the report follows EPA guidance and it has been prepared by an independent and appropriately qualified consultant.

The total closure and restoration/aftercare costs have been calculate as €77,376 (including contingency and adjusted for inflation). KMK has made the necessary financial provision to cover this by means of a bond previously arranged under separate cover to the EPA.

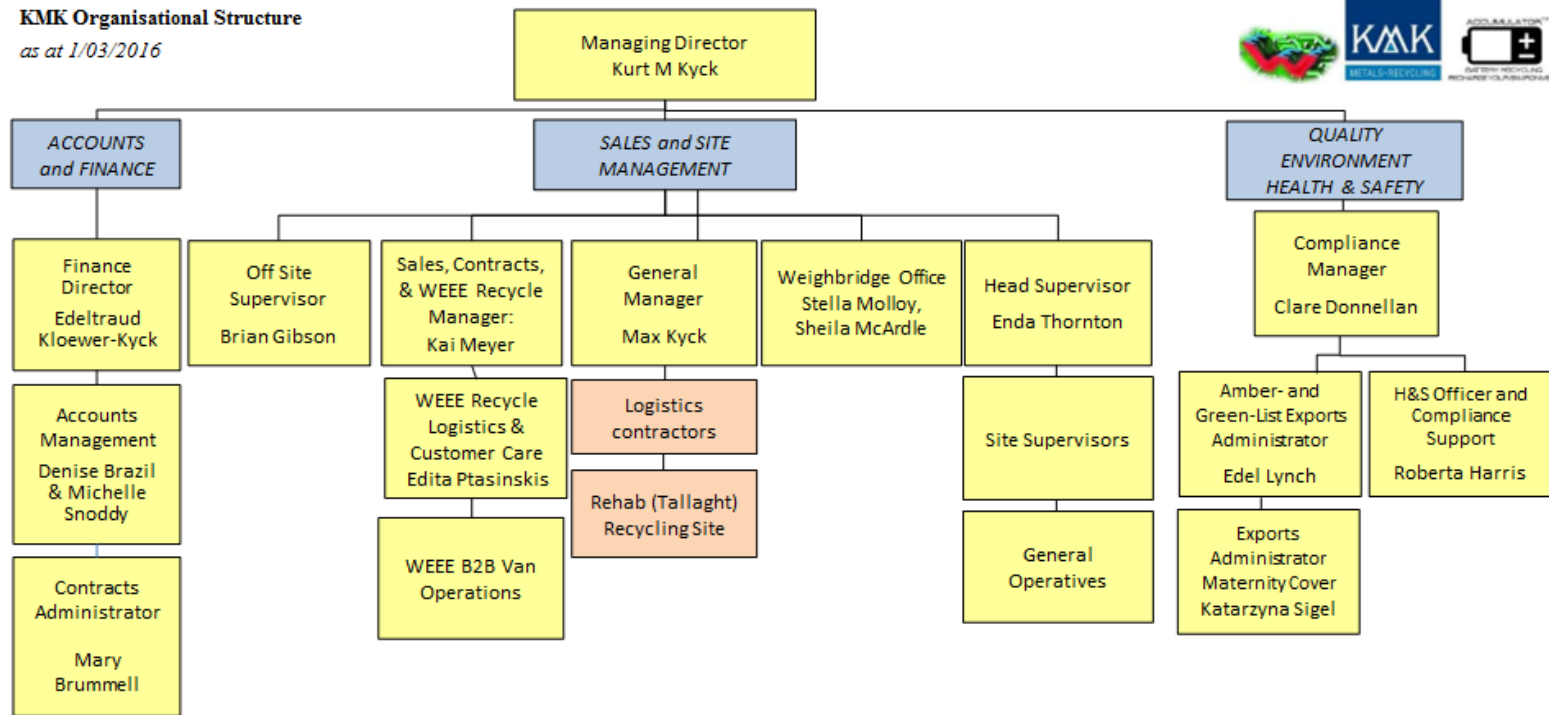


- Programme for Public Information

- KMK provides information about the facility opening hours, website address and contact details on the Facility Notice located at the main gates of the facility.
- KMK provides a website: [www.kmk.ie](http://www.kmk.ie) (complete with 'Audit Us' section and videos of waste management processes) to make relevant information readily available for interested parties. The website is updated by company employees as and when documents change, thanks to its user friendly interface.
- KMK maintains documents and records on file within the company IMS (Integrated Management System) as necessary for Waste Licence Compliance (W0113-04) and ISO 14001
- KMK Open Day: KMK had an Open Day on Saturday the 29th of August 2015. The Open Day was a great success raising much needed funds for community groups and businesses.
- Daffodil Day at KMK: This is an annual fundraising event where KMK grow Daffodils at the back of the facility, cut and sell them. All proceeds go to the Irish Cancer Society.

**KMK Metals Recycling Ltd Organisational Chart**

**KMK Organisational Structure**  
*as at 1/03/2016*



### **23.0 REVIEW OF DECOMMISSIONING PLAN**

Nally Environmental has prepared a Decommissioning Management Plan (DMP) for the site in accordance with Condition 10 of the licence. The methodology for the development of the report follows EPA guidance and it has been prepared by an independent and appropriately qualified consultant. The KMK facility decommissioning plan has fully incorporated all factors which may arise in order to achieve successful clean closure. The guarantee bond currently in place is sufficient to facilitate any predicted and unpredicted costs which may be incurred during and post closure at the KMK facility.

### **24.0 ENVIRONMENTAL LIABILITIES RISK ASSESSMENT**

Condition 12.2.2 of the waste licence states that: *‘The licensee shall arrange for the completion, by an independent and appropriate qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) which addresses the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the DMP. A report on this assessment shall be submitted to the Agency for agreement within twelve months of date of grant of this license. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every 3 years following initial agreement. Review results are to be notified as part of the AER.*

A full Environmental Liabilities Risk Assessment (ELRA) was prepared in December 2014 and submitted to the EPA.

### **25.0 DEVELOPMENT WORKS**

#### **25.1 Development works in 2015**

Please refer to Section 9 for an update on all scheduled development works.

#### **25.2 Proposed Development for 2016**

Please refer to Section 9 for a schedule of all planned development works.

### **26.0 OTHER ITEMS**

There are no further items included in this Annual Environmental Report.

# **APPENDICES**

# **APPENDIX 1**

*Annual Noise Monitoring Report 2015*

# **Noise Survey Report 2015**

for

KMK Metals Recycling Ltd  
Cappincur Industrial Estate  
Daingean Road  
Tullamore  
Co Offaly

Waste Licence No. W0113-04

by

**Q.E.D. Engineering Ltd**

M-TEK Building I  
Armagh Road  
Monaghan  
Tel: 047 72060  
Fax: 047 72060

**August 2015**

## Table of Contents

1. Introduction	2
2. Methodology and Instrumentation	2
3. Results	4
3.1 Boundary Noise Measurements	4
3.2 Tonal Noise Assessment of Boundary Locations	6
4. Discussion	16
4. Conclusion	18
Appendix 1. Site Map showing boundary noise monitoring locations	
Certificates of calibration of noise meters	

## 1. Introduction

Noise levels were measured at KMK Metals Recycling Ltd, Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly on the 23<sup>th</sup>, 24<sup>th</sup> and the 28<sup>th</sup> of July 2015 by Q.E.D. Engineering Ltd, as part of the company's Waste Licence No. W0113-04, Condition 6.11.1.

Daytime, evening time and night time noise levels were measured at four boundary locations on site. A map showing the site boundary locations is provided in Appendix 1. All monitoring locations were defined in the licence W0113-04 in Condition 6.11.1.

Schedule B.3 Noise Emissions tabulates the following limits:

Daytime dB L <sub>Ar,T</sub> (30 minutes)	Evening time dB L <sub>Ar,T</sub> (30 minutes)	Daytime dB L <sub>Ar,T</sub> (15-30 minutes)
55	50	45 <sup>Note 1</sup>

Note 1: There shall be No clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.

To ensure that all monitoring locations could be adequately monitored, and based upon normal best practice for noise measurements, as issued by the EPA, the night time measurement period was a 15 minute period.

Daytime noise monitoring took place on 24/07/15, between 11.00 – 15.15, evening monitoring took place on 28/07/15 between 19:40 – 21:40 and night time monitoring took place on 23/07/15 – 24/07/15 between 23:45 – 01.35.

## 2. Methodology and Instrumentation

Noise monitoring was carried out by Anthony Meehan, BSc in Environmental Science & Technology, of Q.E.D Engineering Limited, following the EPA 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)'. On page 33 of the guidance note, Table 5 states the recommended minimum survey durations and also that night-time measurements should normally be made between 23:00hrs and 04:00hrs, Sunday to Thursday with 23:00hrs being the preferred start time. This recommendation was followed in the survey.

Noise monitoring was carried out using two noise meters as follows;

1. Rion NA-27 Real Time 1/1, 1/3 Octave Band Logging SLM, Serial No. 00380685. This meter was last calibrated on 01/07/14.
2. Castle GA123 Integrated Data-logging Octave Band Sound Level Meter, Serial No. 036015 and microphone Serial No. 27101. This meter was last calibrated on 11/05/15.

A GA607 Dual Level Calibrator, Serial No. 036023 was used to calibrate both sound level meters and this was also last calibrated on 11/05/15.



Both instruments were calibrated before measurements to 94dB and checked after measurement and were found to be satisfactory. Certificates of calibration for both instruments are provided at the end of the report.

Weather conditions during daytime monitoring were warm and sunny with a slight breeze. The average wind speed was 1.0 m/s. Weather conditions during the evening time monitoring were cloudy and cool with a slight breeze. The average wind speed was 1.2 m/s. Conditions for the night time monitoring were calm and mild with an average wind speed of 0.7 m/s. The wind direction during daytime monitoring was from the North West, for the evening time monitoring the wind direction was from the west and during night-time monitoring from the West. Weather conditions were recorded during the survey using a portable Kestrel 3000 Weather Meter (Serial No. 1637619). A standard windshield was used on both instruments during the survey.

Measurement periods were appropriate to establish a typical noise level reading at each location. For boundary noise locations the measurement duration was 30 minutes with 3 sampling periods at each location for daytime, 30 minutes with 1 sampling period at each location for evening monitoring and 15 minutes with 2 sampling periods at each location for night-time monitoring as per the recommended minimum survey duration. In addition a 1/3-octave reading was taken at each boundary noise location.

Monitoring results are given in  $L_{eq}$  i.e. continuous equivalent sound level. In addition, the  $L_{A90}$  and  $L_{A10}$  are also given.  $L_{A90}$  is the noise level exceeded for 90% of the measurement time and the  $L_{A10}$  is the noise level exceeded for 10% of the measurement time. The  $L_{A90}$  is generally indicative of the background noise level. It is generally lower than the average noise - the  $L_{eq}$ . The  $L_{A10}$  is generally indicative of intermittent noise emissions and is generally higher than the  $L_{Aeq}$ . A small difference in  $L_{A10}$ ,  $L_{Aeq}$  and  $L_{A90}$  will indicate a relatively constant noise emission (or a lack of intermittent noise). Therefore the greater the difference between the  $L_{A10}$ ,  $L_{Aeq}$  and  $L_{A90}$ , this indicates intermittent noise such as traffic.

### 3. Results

#### 3.1 Boundary Noise Measurements

Noise measurements were taken at four boundary locations during daytime, evening and night time hours, to determine the general ambient noise level emanating from the site. A summary of results is presented in the following table.

Ref. No.	Day / Night	Time	L <sub>Aeq</sub> dBA	L <sub>A10</sub> dBA	L <sub>A90</sub> dBA	Tonal/ Impulsive	Comments
NE001	Day	11:06 – 11:36	66	69	48	No	Lorries unloading and exiting site. Forklift dropping WEEE into skip. Car dismantlers next door lifting cars. Power washer operating at Ravenhill couriers throughout. Radio on loud in Ravenhill couriers and Ravenhill couriers' lorry operating with reverse alarm.
		11:46 – 12:16	55	56	46		
		12:16 – 12:46	57	57	45		
		<b>Arithmetic Average Day</b>	<b>59</b>	<b>61</b>	<b>46</b>		
	Evening	19:41 – 20:11	52	54	44	No	Forklift dumping metal and plastic chips into storage area in E Building, forklift reverse alarm audible. Road noise from by-pass and main Ballinagar road continuous.
	Night	23:49 – 00:04	41	41	36	No	No site noise audible with the exception of noise from a moving security camera. Traffic noise audible on by-pass road and main Ballinagar road.
		00:10 – 00:25	41	41	36		
<b>Arithmetic Average Night</b>		<b>41</b>	<b>41</b>	<b>36</b>			

NE002	Day	11:18 – 11:48	64	67	56	49.8dB at 3.15kHz. This tone was as a result of a forklift operating nearby.	Loading of lorry with forklift which was 5m away. General WEEE dismantling in C Building and the use of cling film to wrap pallets of tubes. Noise relating to forklift operation also audible.
		11:54 – 12:24	64	67	55		
		12:24 – 12:54	65	65	54		
		<b>Arithmetic Average Day</b> <b>L<sub>Ar,T</sub> (5dB added to L<sub>Aeq</sub> due to tones)</b>	<b>69</b>	<b>66</b>	<b>55</b>		
	Evening	19:50 – 20:20	57	60	47	No	Passing forklift loading a trailer audible. WEEE handling inside D-Hanger audible.
	Night	23:56 – 00:11	39	41	29	No	No site noise audible. Traffic noise audible on by-pass road and main Ballinagar road.
		00:12 – 00:27	38	40	30		
<b>Arithmetic Average Night</b>		<b>39</b>	<b>41</b>	<b>30</b>			

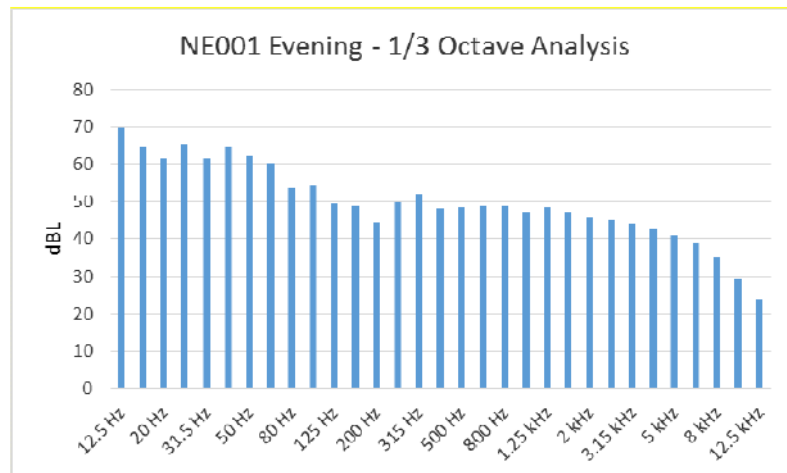
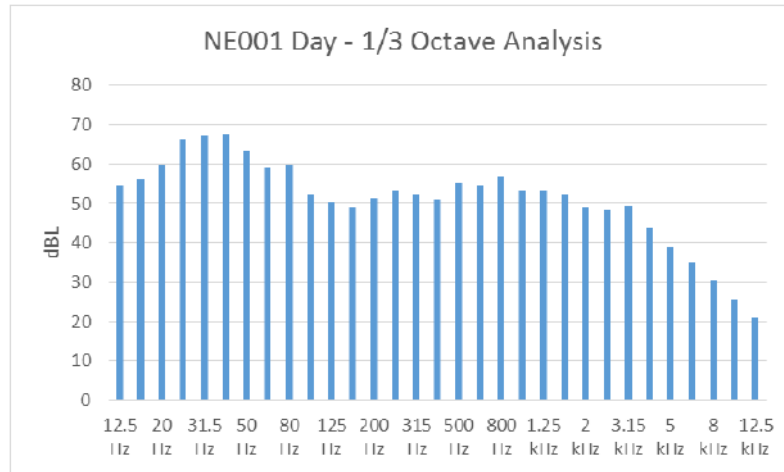
Ref. No.	Day / Night	Time	L <sub>Aeq</sub> dBA	L <sub>A10</sub> dBA	L <sub>A90</sub> dBA	Tonal/ Impulsive	Comments
NE003	Day	13:39 – 14:09	62	65	56	No	Processing and handling of WEEE in D-Hanger, moving forklifts and reverse alarms. Noise from extractor, dust cyclone constant. Extractor off at 14:50
		14:11 – 14:41	59	61	56		
		14:42 – 15:12	55	58	44		
		<b>Arithmetic Average Day</b>	<b>59</b>	<b>61</b>	<b>52</b>		
	Evening	20:38 – 21:08	56	58	47	No	Processing and handling of WEEE in D-Hanger, fridges being loaded in D yard. Off-site road traffic audible.
	Night	00:42 – 00:57	44	49	29	No	Noise from traffic on by-pass. No site noise audible
00:57 – 01:12		41	45	27			
<b>Arithmetic Average Night</b>		<b>43</b>	<b>47</b>	<b>28</b>			
NE004	Day	12:50 – 13:20	63	65	60	No	Processing and handling of WEEE in D-Hanger, moving forklifts and reverse alarms. Off-site traffic noise audible.
		13:21 – 13:51	62	64	58		
		13:54 – 14:24	59	61	51		
		<b>Arithmetic Average Day</b>	<b>61</b>	<b>63</b>	<b>56</b>		
	Evening	21:05 – 21:35	59	60	47	No	Processing and handling of WEEE in D-Hanger, fridges being loaded in D yard. A lot of off-site road traffic.
	Night	00:30 – 00:45	41	44	37	No	Noise from traffic on by-pass audible. Noise from mixed WEEE in D-Hanger audible, possibly a motor.
		00:49 – 01:04	40	43	36		
<b>Arithmetic Average Night</b>		<b>41</b>	<b>44</b>	<b>37</b>			

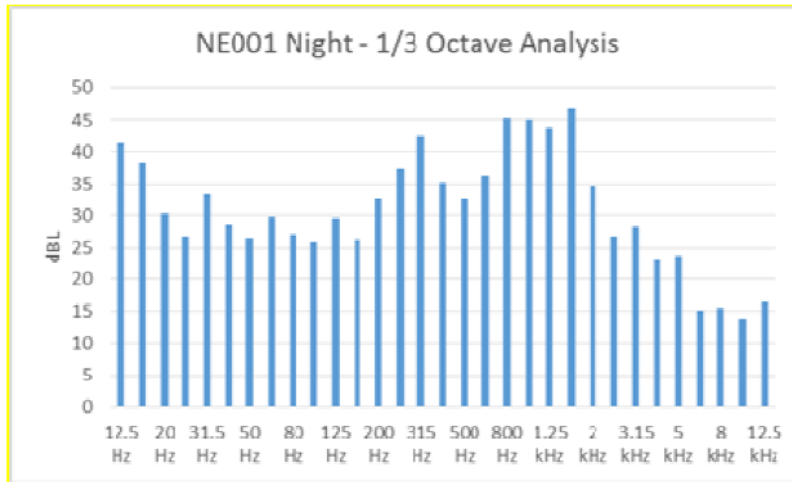
### 3.2 Tonal Noise Assessment of Boundary Noise Locations

Hz	NE001			NE002		
	Day	Evening	Night	Day	Evening	Night
12.5 Hz	54.6	69.6	41.3	48.5	45.5	41.5
16 Hz	56.2	64.7	38.4	52.6	41.2	24.3
20 Hz	59.7	61.5	30.3	55.5	44.4	37.3
25 Hz	66.1	65.3	26.7	57.4	57	36.3
31.5 Hz	67.3	61.6	33.5	58	65.6	36.1
40 Hz	67.6	64.6	28.6	55.7	46.6	36.6
50 Hz	63.4	62.3	26.5	64.5	40.5	37.2
63 Hz	59.3	60	29.8	56.9	51.2	32.9
80 Hz	59.8	53.7	27	49.6	47.5	33.4
100 Hz	52.4	54.3	26	57.4	47.8	32.5
125 Hz	50.3	49.6	29.5	57.1	41.1	34.1
160 Hz	49.3	48.9	26.2	57.7	46.8	32.7
200 Hz	51.2	44.2	32.7	51.7	41.8	36
250 Hz	53.4	49.8	37.4	51.4	38.4	37.5
315 Hz	52.4	51.9	42.7	50	39.9	42.7
400 Hz	51.1	48.1	35.2	50.7	37.2	37.7
500 Hz	55.3	48.4	32.5	51.6	37.3	29.2
630 Hz	54.6	48.6	36.3	49.9	37.5	33.9
800 Hz	56.8	48.9	45.3	49.1	38.2	40.1
1 kHz	53.5	47.3	45.2	46.7	36	36.4
1.25 kHz	53.2	48.4	43.9	47.8	36.4	35.1
1.6 kHz	52.3	47.2	46.8	47.7	34.5	35.4
2 kHz	49	45.8	34.7	44.9	32.7	28
2.5 kHz	48.3	44.9	26.7	44.6	31.2	21.7
3.15 kHz	49.6	43.9	28.2	49.8	33.3	23.1
4 kHz	43.9	42.4	23	40.2	33.7	20.9
5 kHz	39.2	40.9	23.7	35.8	33.5	19.2
6.3 kHz	35.1	38.8	15.1	33.2	31.4	17.5
8 kHz	30.4	35.1	15.4	28.7	24.1	18.6
10 kHz	25.7	29.3	13.7	23.4	19.3	18.7
12.5 kHz	21.1	23.9	16.7	17.2	14.2	14.9

Hz	NE003			NE004		
	Day	Evening	Night	Day	Evening	Night
12.5 Hz	55.4	45.8	38.6	54	50.2	34.2
16 Hz	59.3	45.1	42.7	53.4	56	28.9
20 Hz	61.3	48	42.7	63	48.8	33.8
25 Hz	61.4	53.1	38.8	73.3	64.3	30.6
31.5 Hz	67.4	60.3	46.8	60.3	57.8	33.6
40 Hz	68.4	46.9	48.9	64.3	55.9	32.7
50 Hz	64.5	48.3	35.8	53.8	55.4	31.3
63 Hz	66.7	47	38.1	52.6	54.2	32.5
80 Hz	65	41.3	39.7	51.3	55.4	39.7
100 Hz	58.1	42	36	49.4	51.3	39.6
125 Hz	58.4	39.7	31.7	48	50	29.6
160 Hz	50.5	41.7	27.1	51.1	52.6	30.1
200 Hz	48.6	44.8	27.3	46.9	48.9	33.6
250 Hz	51.3	43.1	26	47.1	46.8	42.3
315 Hz	53.1	39.4	22.6	46.2	46.8	44.5
400 Hz	45.5	40.3	21.8	44.6	45.1	37.8
500 Hz	49.1	39.7	20.4	43.7	44.6	29.8
630 Hz	42.9	41.5	21.4	45.8	44.3	39
800 Hz	46.7	41.8	22.1	45	45.9	47.4
1 kHz	47.1	43.8	21.9	43.7	45	45
1.25 kHz	47.8	42.9	22.9	45.3	46.2	40.8
1.6 kHz	42	40.1	23.3	42.5	44.7	42.3
2 kHz	41.1	35.5	21.1	40.8	40.7	30.3
2.5 kHz	43.4	33.6	23.5	45.1	38.7	24.3
3.15 kHz	46.4	32.9	22.3	46.4	40	26
4 kHz	35.9	29.3	21.4	37	34.4	23.2
5 kHz	34	25.5	23.5	33.4	33.4	23.6
6.3 kHz	34.4	24.1	23.3	31.7	29.8	21.2
8 kHz	28.6	18.6	20.8	30	27.6	19.7
10 kHz	19.5	15.1	17.9	26.3	24	17.2
12.5 kHz	13.7	11.7	14.6	21.3	19.7	15.8

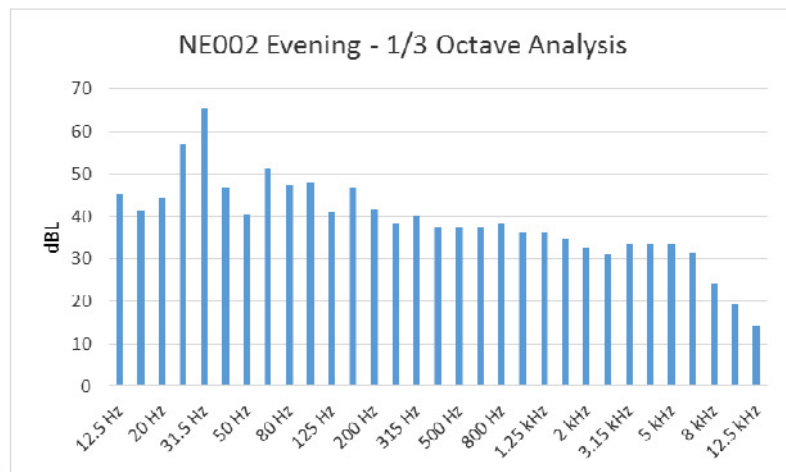
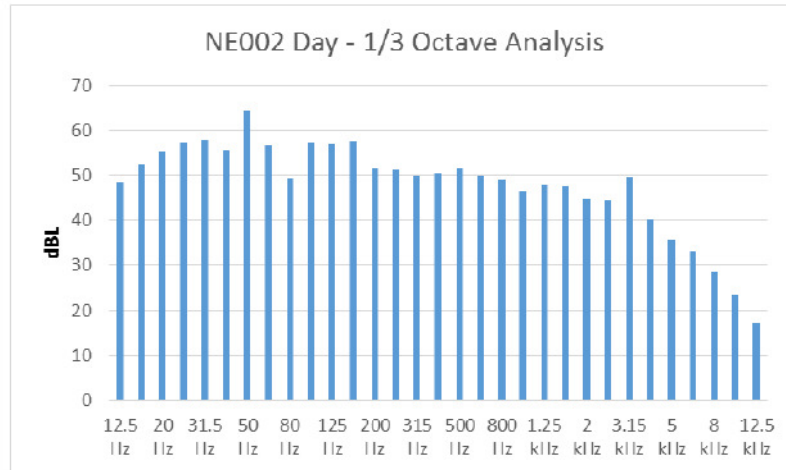
### Tonal Noise Assessment NE001



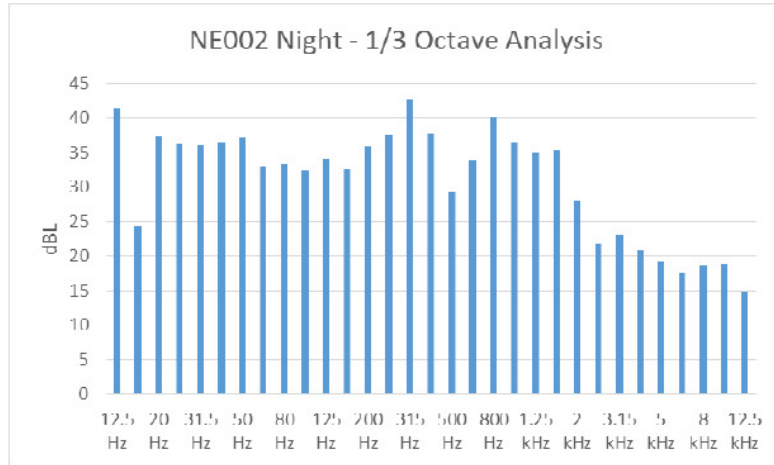


Location	NE001		
	Day	Evening	Night
Period	14.59	21:23	01.32
Time	14.59	21:23	01.32
Suspected 1/3 octave band frequency of tone, Hz	None	None	None
Magnitude of tone dB Leq	-	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq	-	-	-
Level change from following 1/3 octave band, dB Leq	-	-	-
Are the level changes greater than or equal to; 15dB (low frequency), 8dB (middle frequency), 5dB (high frequency)	-	-	-
<b>Conclusion</b>	<b>No tone present</b>	<b>No tone present</b>	<b>No tone present</b>

### Tonal Noise Assessment NE002

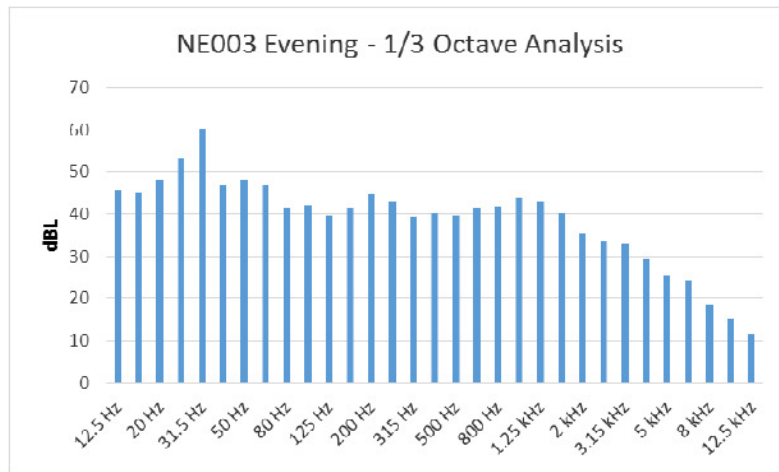
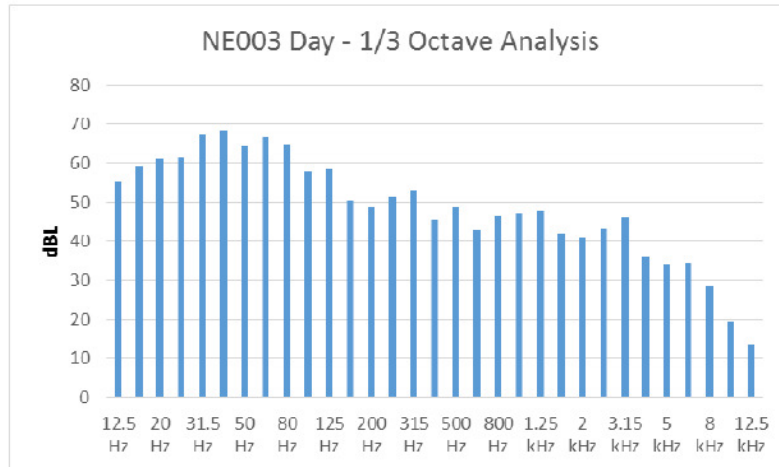


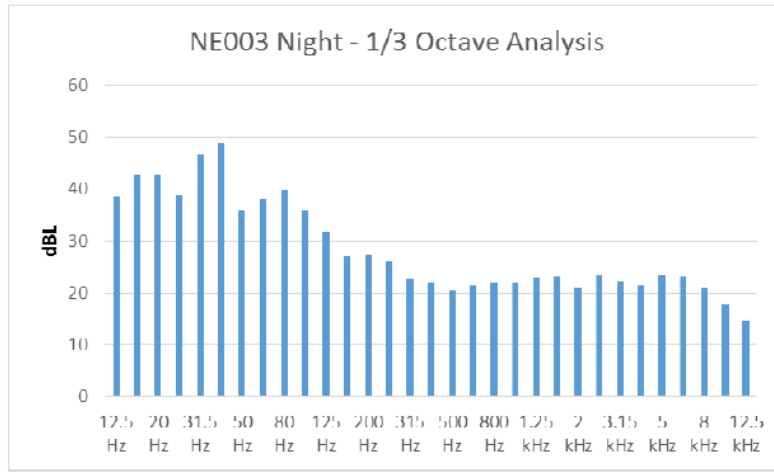




Location	NE002		
	Day	Evening	Night
Period	14.51	21:26	01.28
Suspected 1/3 octave band frequency of tone, Hz	3.15k	None	None
Magnitude of tone dB Leq	49.8	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq	5.2	-	-
Level change from following 1/3 octave band, dB Leq	9.6	-	-
Are the level changes greater than or equal to; 15dB (low frequency), 8dB (middle frequency), 5dB (high frequency)	Yes	-	-
<b>Conclusion</b>	<b>Tonal Noise present</b>	<b>No tone present</b>	<b>No tone present</b>

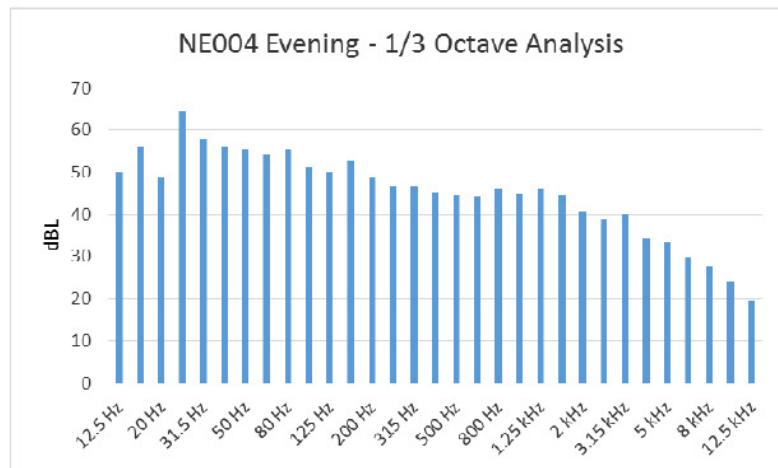
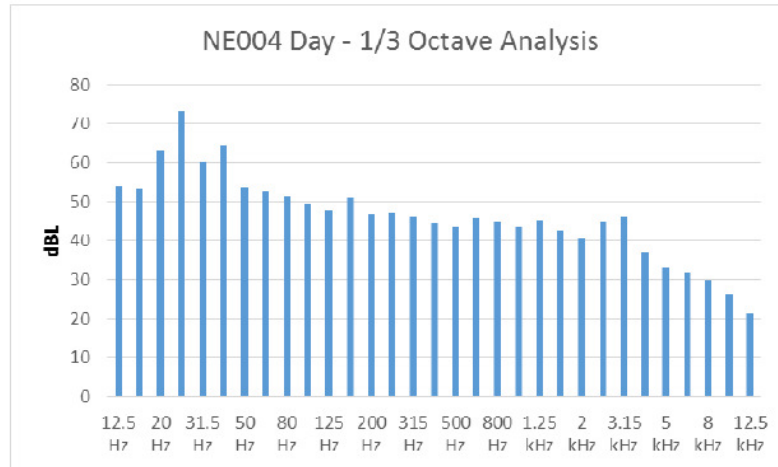
### Tonal Noise Assessment NE003

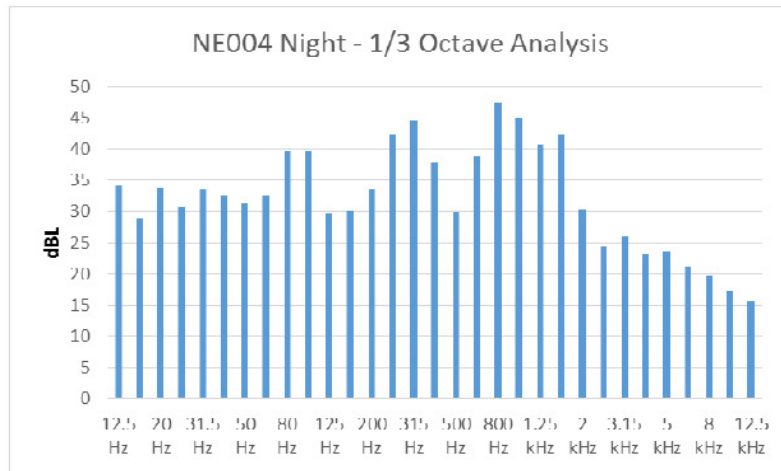




Location	NE003		
	Day	Evening	Night
Period	14.44	21:16	01.20
Time	14.44	21:16	01.20
Suspected 1/3 octave band frequency of tone, Hz	None	None	None
Magnitude of tone dB Leq	-	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq	-	-	-
Level change from following 1/3 octave band, dB Leq	-	-	-
Are the level changes greater than or equal to; 15dB (low frequency), 8dB (middle frequency), 5dB (high frequency)	-	-	-
<b>Conclusion</b>	<b>No tone present</b>	<b>No tone present</b>	<b>No tone present</b>

### Tonal Noise Assessment NE004





Location	NE004		
	Day	Evening	Night
Period	14.48	21:20	00.00
Suspected 1/3 octave band frequency of tone, Hz	None	None	None
Magnitude of tone dB Leq	-	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq	-	-	-
Level change from following 1/3 octave band, dB Leq	-	-	-
Are the level changes greater than or equal to; 15dB (low frequency), 8dB (middle frequency), 5dB (high frequency)	-	-	-
<b>Conclusion</b>	<b>No tone present</b>	<b>No tone present</b>	<b>No tone present</b>

## 4. Discussion

The site is located within the Cappincur Industrial Estate, Tullamore. This industrial estate includes warehousing, commercial/industrial and waste management operations with Tullamore Steel, Midland Farm Machinery, Modified Motors, Ravenhill Couriers, Dunne & son solid fuel merchant and Condron Car Dismantlers and a number of other businesses, all located within a relatively close proximity to the KMK site. All of these businesses have noise associated with their activities and this results in a cumulative noise impact within the industrial estate.

### NE001

NE001 located on the northern boundary had an average  $L_{Aeq}$  reading of 59dBA during the day. The difference of 15dBA between the average  $L_{A10}$  reading of 61dBA and the average  $L_{A90}$  reading of 46dBA indicates the presence of a lot of intermittent noise at this location, caused by on-site and off-site traffic, the handling of WEEE on-site and the operation of a power washer and movement of lorries at Ravenhill couriers adjacent to this monitoring location.

This location had an average  $L_{Aeq}$  reading of 52dBA during the evening. The difference of 10dBA between the average  $L_{A10}$  reading of 54dBA and the average  $L_{A90}$  reading of 44dBA indicates the presence of a lot of intermittent noise at this location, caused by a forklift dumping metal and plastic chips into a storage area near this monitoring location and by road traffic noise from the by-pass and the main Ballinagar road.

This location had an average  $L_{Aeq}$  reading of 41dBA during the night. The difference of 5dBA between the average  $L_{A10}$  reading of 41dBA and the average  $L_{A90}$  reading of 36dBA indicates the presence of some intermittent noise at this location, caused by road traffic noise from the by-pass and the main Ballinagar road.

No impulsive or tonal noise from the factory was audible at this location.

### NE002

NE002 located at the eastern boundary of the site had an average  $L_{Aeq}$  reading of 64dBA during the day, which was adjusted to an  $L_{A,T}$  reading of 69dBA due to the presence of tonal noise during the day. The difference of 11dBA between the average  $L_{A10}$  reading of 66dBA and the average  $L_{A90}$  reading of 55dBA indicates the presence of a lot of intermittent noise at this location, caused by the loading of a lorry with a forklift 5metres from this monitoring location and from general WEEE handling and dismantling.

This location had an average  $L_{Aeq}$  reading of 57dBA during the evening. The difference of 13dBA between the average  $L_{A10}$  reading of 60dBA and the average  $L_{A90}$  reading of 47dBA indicates the presence of a lot of intermittent noise at this location, again caused by a forklift loading a lorry and from WEEE handling inside D-Hanger.

This location had an average  $L_{Aeq}$  reading of 39dBA during the night. The difference of 11dBA between the average  $L_{A10}$  reading of 41dBA and the average  $L_{A90}$  reading of 30dBA indicates the presence of a lot of intermittent noise at this location, caused by road traffic noise from the by-pass and the main Ballinagar road.

No impulsive noise was audible at this location. Tonal noise was identified during the day at this monitoring location which was as a result of a forklift operating nearby.

### **NE003**

NE003 located at the southern boundary behind the D-Hanger building had an average  $L_{Aeq}$  reading of 59dBA during the day. The difference of 9dBA between the average  $L_{A10}$  reading of 61dBA and the average  $L_{A90}$  reading of 52dBA indicates the presence of a lot of intermittent noise at this location, caused by the processing and handling of WEEE in D-Hanger and from road traffic on the by-pass.

This location had an average  $L_{Aeq}$  reading of 56dBA during the evening. The difference of 11dBA between the average  $L_{A10}$  reading of 58dBA and the average  $L_{A90}$  reading of 47dBA indicates the presence of a lot of intermittent noise at this location, again caused by the processing and handling of WEEE in D-Hanger and from road traffic on the by-pass.

This location had an average  $L_{Aeq}$  reading of 43dBA during the night. The difference of 19dBA between the average  $L_{A10}$  reading of 47dBA and the average  $L_{A90}$  reading of 28dBA indicates the presence of a lot of intermittent noise at this location, caused by road traffic noise from the by-pass.

No impulsive or tonal noise from the factory was audible at this location.

### **NE004**

NE004 located on the western boundary of the site had an average  $L_{Aeq}$  reading of 61dBA during the day. The difference of 7dBA between the average  $L_{A10}$  reading of 63dBA and the average  $L_{A90}$  reading of 56dBA indicates the presence of some intermittent noise at this location, caused by the processing and handling of WEEE in D-Hanger and from road traffic noise from the by-pass and the main Ballinagar road.

This location had an average  $L_{Aeq}$  reading of 59dBA during the evening. The difference of 13dBA between the average  $L_{A10}$  reading of 60dBA and the average  $L_{A90}$  reading of 47dBA indicates the presence of a lot of intermittent noise at this location, caused by the processing and handling of WEEE in D-Hanger, the loading of fridges in D yard, and from road traffic on the by-pass.

This location had an average  $L_{Aeq}$  reading of 41dBA during the night. The difference of 7dBA between the average  $L_{A10}$  reading of 44dBA and the average  $L_{A90}$  reading of 37dBA indicates the presence of a lot of intermittent noise at this location, caused by road traffic noise from the by-pass and the main Ballinagar road.

No impulsive or tonal noise from the factory was audible at this location.



## 5. Conclusion

The level of noise at the site boundary of the facility is relatively high during day and evening times. All noise readings at Boundary Noise Locations exceeded the licence requirements for daytime and evening time noise levels. All night-time noise readings at Boundary Noise Locations were below the licence requirements.

The site is located within the Cappincur Industrial Estate, Tullamore, which includes warehousing, commercial/industrial and waste management operations. The site is also located along the main Ballinagar road to the north of the site and the National N52 by-pass road of Tullamore, located to the west and south west of the site. There are no notable housing estates or noise sensitive locations within close proximity to the industrial estate. The closest dwelling house to the facility is located 200m from the northern boundary of the site. Dwelling houses in the area will experience noise from traffic movements on the local roads leading to Tullamore town and on the National N52 by-pass road, and from vehicle movements associated with the Cappincur Industrial Estate.

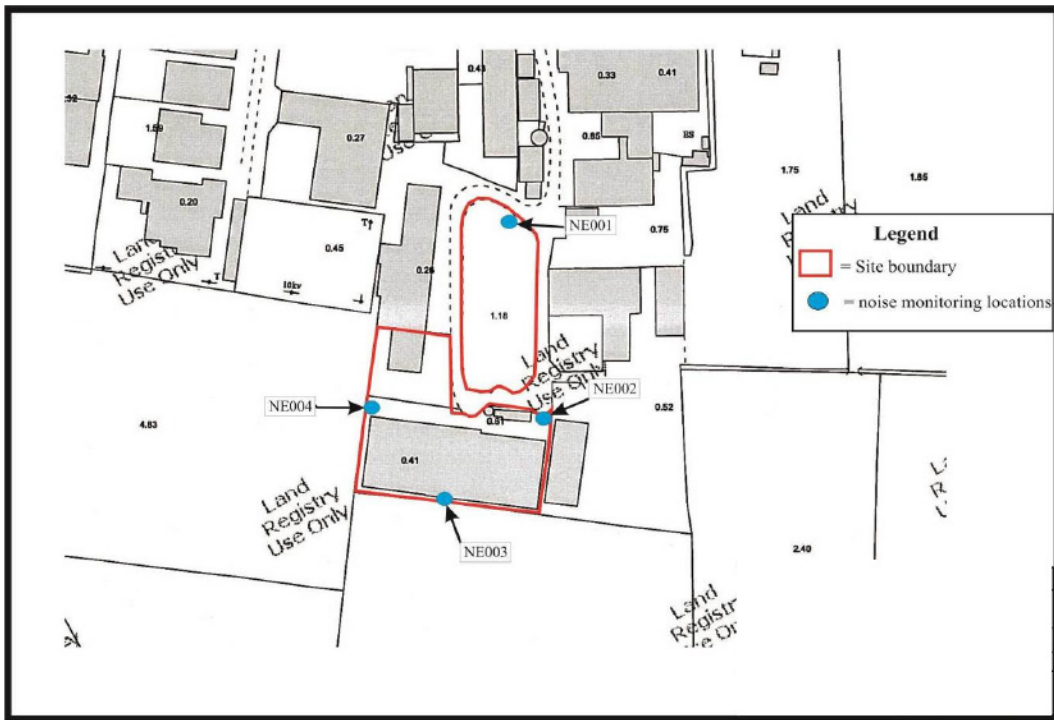
The exceedences at boundary locations are not likely to be experienced at any noise sensitive location near the site due to noise dissipation over increasing distances and mitigation as a result of buildings acting as noise reduction barriers. For point sources it is known that a doubling of the distance away from the source results in a 6 dBA fall in noise level. An example of this is shown in the following table:

Distance (m)	Noise Level (dB)
5	65
10	59
20	53
40	47
80	41
160	35

The 1/3 Octave Noise Readings taken at Boundary Noise Locations and subjective determinations made on the site during monitoring show that there was tonal noise identified during the day at NE002 monitoring location which was as a result of a forklift operating nearby. The NG4 guidance document states that in order to take into account the fact that tonal noise is more noticeable than broadband noise and can therefore be more intrusive, it is appropriate to penalise tonal noise in assessments by applying a correction factor to the measured noise level in order to arrive at a 'rating level'. The rating level ( $L_{A,r,T}$ ) is calculated by adding a 5dB value to the measured continuous A-weighted sound pressure level ( $L_{A,eq}$ ). The purpose of the rating level is to arrive at a better estimate of the potential community response to the measured noise. The  $L_{A,eq}$  reading of 64dBA during the day at NE002 monitoring location was adjusted to an  $L_{A,r,T}$  reading of 69dBA due to the presence of tonal noise. However, as discussed previously, the exceedences at this location are not likely to be experienced at any noise sensitive location near the site due to noise dissipation over increasing distances and mitigation as a result of buildings acting as noise reduction barriers.



### Appendix 1. KMK Metals Recycling Map showing Boundary Noise Monitoring Locations



## Certificate of Calibration of Castle GA123 Noise Meter

### CERTIFICATE OF CALIBRATION

Issued By PASS Ltd - www.calibrate.co.uk  
Date of Issue 11 May 2015

Certificate Number  
STD49554

Page 1 of 3 Pages

 **1 Alberto Street**  
**Stockton On Tees**  
**Teesside. TS18 2BQ**  
**TEL 0845 365 39 44**  
Portable Appliance Safety Services

Approved Signatory

P.Beswick  I.Ibrahim  D.Kendrew

Customer : QED Engineering Ltd  
M-TEK Building 1, Armagh Road  
Monaghan Ireland

Date Received : 07 May 2015

Instrument -	System ID :	ID32443	Job Number :	J67790-1
	Description :	Sound Level Meter Type1	Site :	
	Manufacturer :	Castle	Location :	
	Model Number :	GA123		
	Serial Number :	036015		
	Procedure Version :	1.00_15		

#### Environmental Conditions

Temperature :	20°C +/- 3°C	Mains Voltage :	240V +/- 10V
Relative Humidity :	50% +/- 15%	Mains Frequency :	50Hz +/- 1Hz

#### Comments

Procedure written to manufactures specification.  
Specification reference: CASTLE (GA123) Instruction Manual.  
Instrument was placed in lab and allowed to stabilise before calibration.

#### Traceability Information

Instrument description	Serial number	Certificate number	Cal Date	Cal Period
GA607 Dual Level Calibrator	043477	23306U	26/01/2015	52

Calibrated By : N.Hayward

Date of Calibration : 11 May 2015

This certificate provides traceability of measurement to recognised National Standards, and to the units of measurement realised at the National Physical Laboratory or other recognised National Standards laboratories.  
Copyright of this certificate is owned by the issuing laboratory and may not be reproduced except with the prior written approval of the issuing laboratory.  
This certificate complies with the requirements of BS EN ISO 10012:2003.

# CERTIFICATE OF CALIBRATION

*AS FOUND RESULTS*

Certificate Number  
STD49554

Page 2 of 3 Pages

Test Title	Tolerance Trrl	Applied Value	Reading Title	Pass/Fail
<b>General Operation Tests</b>				
Display & Control	—	—	Pass	
<b>Sound Level Measurements</b>				
94dB	700m dB	94.0dB	94.2dB	Pass
104dB	700m dB	104.0dB	104.3dB	Pass

\*\*\*\*\* End of results \*\*\*\*\*

## Uncertainties

dB ±0.3dB

# CERTIFICATE OF CALIBRATION

*AFTER ADJUSTMENT RESULTS*

Certificate Number  
STD49554

Page 3 of 3 Pages

Test Title	Tolerance Titr	Applied Value	Reading Title	Pass/Fail
General Operation Tests				
Display & Control	—	—	Pass	
Sound Level Measurements				
94dB	700mdB	94.0dB	94.0dB	Pass
104dB	700mdB	104.0dB	103.9dB	Pass

\*\*\*\*\* End of results \*\*\*\*\*

Uncertainties

dB ±0.3dB

## Certificate of Calibration of Rion NA-27 Noise Meter

<b>CERTIFICATE OF CALIBRATION</b>	
<b>Issued By</b> PASS Ltd - www.calibrate.co.uk	<b>Certificate Number</b> STD39922
<b>Date of Issue</b> 01 July 2014	<b>Page 1 of 3 Pages</b>



Approved Signatory

I. Ibrahim     D. Kendrew

**Customer :** QED Engineering Ltd  
M-TEK Building 1, Armagh Road  
Monaghan Ireland

**Date Received :** 30 June 2014

<b>Instrument -</b>	<b>System ID :</b>	ID28321	<b>Job Number :</b>	J53025-1
	<b>Description :</b>	Sound Level Meter	<b>Site :</b>	
	<b>Manufacturer :</b>	Rion	<b>Location :</b>	
	<b>Model Number :</b>	NA-27		
	<b>Serial Number :</b>	00380685		
	<b>Procedure Version :</b>	1.00_14		

### Environmental Conditions

<b>Temperature :</b>	20°C +/- 3°C	<b>Mains Voltage :</b>	240V +/- 10V
<b>Relative Humidity :</b>	50% +/- 15%	<b>Mains Frequency :</b>	50Hz +/- 1Hz

### Comments

Procedure written to specification of  $\pm 0.3$ db.  
Instrument was placed in lab and allowed to stabilise before calibration.

### Traceability Information

Instrument description	Serial number	Certificate number	Cal. Date	Cal. Period
13056 Sound Level Calibrator	040903651	U13991 / U13992	08/07/2013	52

**Calibrated By :** I. Ibrahim

**Date of Calibration :** 01 July 2014

This certificate provides traceability of measurement to recognised National Standards, and to the units of measurement realised at the National Physical Laboratory or other recognised National Standards laboratories.  
Copyright of this certificate is owned by the issuing laboratory and may not be reproduced except with the prior written approval of the issuing laboratory.  
This certificate complies with the requirements of BS EN ISO 10012:2003.

# CERTIFICATE OF CALIBRATION

**AS FOUND RESULTS** *(see table)*

Certificate Number  
STD39922

Page 2 of 3 Pages

Test Title	Tolerance	Applied Value	Reading	Pass/Fail
<b>General Operation Test</b>				
Display & Control	---	---	Pass	
<b>Sound Tests</b>				
94db	300mdb	94db	93.8db	Pass
104db	300mdb	104db	102.0db	Fail
<b>End of results</b>				

## Uncertainties

dB                      0.01dB



# CERTIFICATE OF CALIBRATION

## AFTER ADJUSTMENT RESULTS

Certificate Number  
 STD39922

Page 3 of 3 Pages

Test Title	Tolerance	Applied Value	Reading	Pass/Fail
<b>General Operation Test</b>				
Display & Control	---	---	Pass	
<b>Sound Tests</b>				
94db	300mdb	94db	94.0db	Pass
104db	300mdb	104db	104.0db	Pass
<b>End of results</b>				

### Uncertainties

dB 0.01dB

## Certificate of Calibration of Castle Calibrator

### CERTIFICATE OF CALIBRATION

Issued By PASS Ltd - www.calibrate.co.uk  
Date of Issue 11 May 2015

Certificate Number  
STD49552

Page 1 of 2 Pages



1 Alberto Street  
Stockton On Tees  
Teesside, TS18 2BQ  
TEL 0845 365 39 44

Approved Signatory

P. Beswick  Ibrahim  D. Kendrew

Customer : QED Engineering Ltd  
M-TEK Building 1, Armagh Road  
Monaghan Ireland

Date Received : 07 May 2015

Instrument -	System ID :	ID32444	Job Number : J67790-2
	Description :	Sound Calibrator	
	Manufacturer :	Castle	Site :
	Model Number :	GA607	Location :
	Serial Number :	036023	
	Procedure Version :	1.00_14	

#### Environmental Conditions

Temperature :	20°C +/- 3°C	Mains Voltage :	240V +/- 10V
Relative Humidity :	50% +/- 15%	Mains Frequency :	50Hz +/- 1Hz

#### Comments

Procedure written to manufactures specification.  
Specification reference: Castle (GA607) Instruction Manual  
Instrument was placed in lab and allowed to stabilise before calibration.

#### Traceability Information

Instrument description	Serial number	Certificate number	Cal. Date	Cal. Period
GA116b Digital Sound Pressure Meter C1	069235	23304U	27/01/2015	52

Calibrated By : N. Hayward

Date of Calibration : 11 May 2015

This certificate provides traceability of measurement to recognised National Standards, and to the units of measurement realised at the National Physical Laboratory or other recognised National Standards laboratories.  
Copyright of this certificate is owned by the issuing laboratory and may not be reproduced except with the prior written approval of the issuing laboratory.  
This certificate complies with the requirements of BS EN ISO 10012:2003.



# CERTIFICATE OF CALIBRATION

Certificate Number  
STD49562

Page 2 of 2 Pages

Test Title	Tolerance	Applied Value	Reading	Pass/Fail
General Operation Test Control	—	—	Pass	
Range 94dB 94db	300mdb	94.0db	94.1db	Pass
Range 104dB 104db	300mdb	104.0db	104.1db	Pass
End of results				

## Uncertainties

dB ±0.3dB

## **APPENDIX 2**

## *Waste Received in 2015*

<b>Point of Collection</b>	<b>Description of Waste</b>	<b>EWC Code</b>	<b>Material Weight (T)</b>
Civic Amenity Site	LHA - Large Household Appliances	20 01 36	2,114.448
Civic Amenity Site	CRT (TVs & Monitors)	20 01 35*	2,033.502
Civic Amenity Site	SHA - Small Household Appliances	20 01 36	183.948
Civic Amenity Site	LHA (Fridges)	20 01 23*	888.159
Civic Amenity Site	Fluorescent Tubes & Bulbs	20 01 21*	65.336
Civic Amenity Site	Mixed Household Appliances	20 01 36	3,256.933
Civic Amenity Site	Batteries (Alkaline/Fence)	16 06 04	118.542
Civic Amenity Site	Batteries (Lead)	16 06 01*	104.594
Civic Amenity Site	IT Equipment	16 02 16	0.369
Civic Amenity Site	IT Equipment (Tapes / CDs)	16 02 16	0.168
Civic Amenity Site	Steel Scrap	12 01 01	14.160
Civic Amenity Site	Electric Motors	16 02 16	0.409
Commercial	Fridges	16 02 11*	1,725.682
Commercial	LHA - Large Household Appliances	16 02 14	5,480.288
Commercial	LHA - Large Household Appliances - Mixed	16 02 14	966.958
Commercial	CRT (TVs & Monitors)	16 02 13*	637.348
Commercial	CRT (TVs & Monitors)	20 01 35*	70.526
Commercial	LHA (Fridges)	20 01 23*	158.744
Commercial	SHA - Small Household Appliances	20 01 36	88.676
Commercial	Fluorescent Tubes & Bulbs	20 01 21*	39.790
Commercial	Batteries (Alkaline/Fence)	16 06 04	202.964
Commercial	E-Scrap for Dismantling	16 02 16	63.158
Commercial	IT Equipment	16 02 16	210.606
Commercial	Batteries (Unsorted)	20 01 33*	3.457
Commercial	Machinery Scrap	16 02 14	70.899
Commercial	SHA - Small Household Appliances	16 02 14	54.509
Commercial	IT Equipment	16 02 14	175.595
Commercial	Batteries (Nickel Cadmium)	16 06 02*	14.015
Commercial	Steel Scrap	12 01 01	0.396
Commercial	Batteries (Lead)	16 06 01*	302.762
Commercial	Electronic Components	16 02 16	0.909
Commercial	Batteries (Lithium/Lithium - Ion)	16 06 05	5.685
Commercial	Rubbish / Sweepings	15 01 06	1.204
Commercial	Lead Scrap	19 12 03	0.372
Commercial	Mixed Metal Scrap	16 02 14	10.985
Commercial	Printer & Toner Cartridges	16 02 16	1.253
Commercial	Circuit Boards	16 02 16	1.407
Commercial	Electric Motors	16 02 16	5.869
Commercial	Cable Scrap (Low Grade)	16 02 16	1.112
Commercial	Plastic Scrap (from IT)	16 02 16	1.010
Commercial	Medical Devices	16 02 14	2.766
Commercial	Radiators (Oil Filled)	16 02 14	0.440
Commercial	Timber (Pallets & Packaging)	15 01 03	3.594
Commercial	Stainless Steel Scrap	19 12 03	0.195

Commercial	Microwaves	16 02 14	0.312
Commercial	Steel Scrap	20 01 40	1.909
Commercial	Plastic Packaging	15 01 02	0.129
Commercial	LHA - Large Household Appliances	20 01 36	0.067
Commercial	Discarded WEEE Containing Haz Components	20 01 35*	3.724
Commercial	Aluminium	12 01 03	1.188
Commercial	IC Scrap	16 02 16	0.016
Commercial	Brass Scrap	12 01 03	0.009
Commercial	Copper Scrap	12 01 03	0.048
Gate Customer	Circuit Boards	16 02 16	6.451
Gate Customer	Cable Scrap	16 02 16	2.946
Gate Customer	Batteries (Lead)	16 06 01*	77.717
Gate Customer	Lead	19 12 03	1.714
Gate Customer	IT Equipment (PC Power Supplies)	16 02 16	11.296
Gate Customer	Copper Scrap	12 01 03	2.294
Gate Customer	Brass Scrap	12 01 03	0.658
Gate Customer	Aluminium	12 01 03	14.424
Gate Customer	Fluorescent Tubes & Bulbs	20 01 21*	0.016
Gate Customer	Plastic Scrap	19 12 04	0.522
Gate Customer	Electronic Components	16 02 16	3.782
Gate Customer	CRT (TVs & Monitors)	16 02 13*	1.300
Gate Customer	Copper Brazery Scrap	12 01 03	0.483
Gate Customer	Precious Metal Scrap	12 01 03	0.003
Gate Customer	Copper Cylinders	12 01 03	0.231
Gate Customer	Electric Motors	16 02 16	2.725
Gate Customer	Stainless Steel Scrap	19 12 03	0.643
Gate Customer	IC Scrap	16 02 16	0.019
Gate Customer	Engines from ELV's	16 01 22	1.141
Gate Customer	Mixed Metal Scrap	16 02 14	2.475
Gate Customer	Machinery Scrap	16 02 14	0.658
Gate Customer	Steel Scrap	12 01 01	36.224
Gate Customer	E-Scrap for Dismantling	16 02 16	0.128
Gate Customer	IT Equipment	16 02 14	1.214
Gate Customer	Magnets	12 01 01	0.213
Industrial	Aluminium	12 01 03	80.464
Industrial	Solder Paste (Tubes)	12 01 03	0.107
Industrial	Circuit Boards	16 02 16	50.074
Industrial	Plastic with Stainless Steel Spring	16 03 04	10.136
Industrial	Steel Scrap	12 01 01	162.117
Industrial	Solder Lead Free with Ag	12 01 13	0.233
Industrial	Solder Lead Free	12 01 13	2.285
Industrial	IT Equipment	16 02 16	477.183
Industrial	Fluorescent Tubes & Bulbs	20 01 21*	18.928
Industrial	IT Equipment (mixed) Haz	16 02 13*	196.490
Industrial	IT Equipment	16 02 14	267.001
Industrial	Plastic Scrap	19 12 04	18.862
Industrial	Cable Scrap	16 02 16	92.429
Industrial	Batteries (Alkaline)	16 06 04	34.731

Industrial	Titanium Scrap	12 01 03	4.604
Industrial	NFM WEEE Assemblies	16 02 16	9.560
Industrial	Fridges (Commercial b2b)	16 02 11*	23.724
Industrial	Machinery Scrap	16 02 14	764.351
Industrial	Batteries (Lead)	16 06 01*	32.149
Industrial	Electric Motors	16 02 16	10.472
Industrial	Rubbish / Sweepings	15 01 06	3.464
Industrial	Solder Wipes	15 02 03	2.182
Industrial	Plastic Scrap (from IT)	16 02 16	25.556
Industrial	Copper Clad Steel Pins	12 01 03	8.949
Industrial	Zinc Scrap	12 01 03	126.355
Industrial	Cobalt Chrome Swarf	12 01 03	35.409
Industrial	Cobalt Chrome Extractor Dust (1)	12 01 04	70.086
Industrial	Nickel Residues	12 01 03	32.326
Industrial	Spent Grinding Bodies Non Haz	12 01 21	3.878
Industrial	Nickel Filter Cake	06 05 02*	9.624
Industrial	Aluminium Oxide Powder	12 01 17	88.405
Industrial	Cobalt Chrome Sponge	12 01 04	2.516
Industrial	Cobalt Chrome Magnetic	12 01 04	2.314
Industrial	Cobalt Chrome Filters	12 01 04	17.240
Industrial	Foundry Ceramic & Runnings	10 10 08	53.795
Industrial	Cobalt Chrome Runnings	12 01 03	54.513
Industrial	Stainless Steel Scrap	19 12 03	198.258
Industrial	Precious Metal Scrap	12 01 03	0.050
Industrial	Silvered Copper Wire	12 01 03	1.610
Industrial	IC Scrap	16 02 16	0.196
Industrial	Capacitors	16 02 09*	0.574
Industrial	Batteries (Nickel Cadmium)	16 06 02*	4.603
Industrial	Copper Pins on Paper	16 02 16	0.198
Industrial	SHA - Small Household Appliances	16 02 14	34.283
Industrial	Brass Scrap	12 01 03	2.002
Industrial	Copper Scrap	12 01 03	6.627
Industrial	Copper Pins	12 01 03	1.105
Industrial	Steel Scrap	20 01 40	63.885
Industrial	Tungsten Carbide	12 01 03	0.234
Industrial	Plastic Foil with metal	16 02 16	1.176
Industrial	Cobalt Chrome Grinding	12 01 04	3.688
Industrial	Cobalt Chrome Solids	12 01 04	11.903
Industrial	Electronic Components	16 02 16	27.653
Industrial	LHA - Large Household Appliances	16 02 14	4.564
Industrial	E-Scrap for Dismantling	16 02 16	9.521
Industrial	Timber (Pallets & Packaging)	15 01 03	61.772
Industrial	Inconel (LPPS) overspray	12 01 03	2.540
Industrial	Solder Metal Solids	12 01 13	0.009
Industrial	Molybdenum Scrap	12 01 04	0.133
Industrial	Inconel Scrap	12 01 03	8.444
Industrial	Printer & Toner Cartridges	16 02 16	3.772
Industrial	Titanium Swarf	12 01 03	11.789

Industrial	Batteries (Lithium/Lithium - Ion)	16 06 05	1.843
Industrial	Glass Packaging	15 01 07	0.271
Industrial	Cardboard Packaging	15 01 01	1.169
Industrial	Aluminium Foil	20 01 40	2.387
Industrial	Cobalt Chrome Grinding Dust	12 01 03	0.654
Industrial	Batteries (Unsorted)	20 01 33*	1.703
Industrial	Cobalt Chrome Extractor Filter	12 01 04	1.771
Industrial	Mixed Metal Scrap	16 02 14	12.723
Industrial	Tungsten Carbide Tools	12 01 03	0.359
Industrial	Inconel Metal (Filters)	12 01 03	1.558
Industrial	Inconel Turnings	12 01 03	0.960
Industrial	High Speed Steel (HSS Tools)	12 01 02	5.864
Industrial	Tungsten Carbide Grinding Paste	12 01 20*	2.532
Industrial	Gold Scrap	16 02 16	0.001
Industrial	Nickel Scrap (Flash / Foil)	12 01 03	0.056
Industrial	Radiators (Oil Filled)	16 02 14	0.025
Industrial	Batteries (Nickel Metal Hydride)	16 06 05	0.112
Industrial	Medical Devices	16 02 14	3.215
Industrial	Nickel Scrap	12 01 03	6.961
Industrial	Filter Cake	11 01 10	1.770
Industrial	Nickel Residues - Plasma Dust*	12 01 16*	0.453
Industrial	Nickel Scrap (Pellets)	12 01 03	0.400
Industrial	Chrome Steel	12 01 03	1.491
Industrial	Solder Dross	12 01 13	0.014
Industrial	Solder Paste	12 01 13	0.364
Industrial	Stainless Steel (Springs)	12 01 01	2.998
Industrial	Filter Cake Residue - Materion	06 05 03	0.456
Industrial	Zinc Scrap with attachments	12 01 03	0.586
Industrial	Palladium Scrap	12 01 03	0.040
Industrial	Copper Wire Scrap	12 01 03	0.282
Industrial	Microwaves	16 02 14	0.015
Industrial	Capacitors non hazard	16 02 16	0.619
Industrial	Nickel Alloy Scrap	19 12 03	0.003
Industrial	Brass Wire	12 01 03	0.493
Industrial	Magnets	12 01 01	4.079
Industrial	Copper Brazery Scrap	12 01 03	0.460
Transfer Station	Mixed Household Appliances	20 01 36	668.131
Transfer Station	LHA - Large Household Appliances	20 01 36	74.525
Transfer Station	Circuit Boards	16 02 16	51.386
Transfer Station	Tungsten Carbide	12 01 03	0.196
Transfer Station	Aluminium	12 01 03	24.139
Transfer Station	IT Equipment	16 02 16	207.929
Transfer Station	Machinery Scrap	16 02 14	126.713
Transfer Station	CRT (TVs & Monitors)	16 02 13*	240.201
Transfer Station	IT Equipment	16 02 14	396.497
Transfer Station	Cable Scrap	16 02 16	65.290
Transfer Station	SHA - Small Household Appliances	16 02 14	175.178
Transfer Station	Solder Dross	12 01 13	1.241

Transfer Station	Batteries (Lead)	16 06 01*	107.363
Transfer Station	Batteries (Alkaline/Fence)	16 06 04	42.015
Transfer Station	Engines from ELV's	16 01 22	20.514
Transfer Station	Cobalt Chrome Extractor Filter	12 01 04	6.068
Transfer Station	Electronic Components	16 02 16	2.057
Transfer Station	Electric Motors	16 02 16	194.350
Transfer Station	Timber (Pallets & Packaging)	15 01 03	0.892
Transfer Station	Fridges	16 02 11*	20.691
Transfer Station	Rubbish / Sweepings	15 01 06	0.342
Transfer Station	Radiators (Oil Filled)	16 02 14	2.763
Transfer Station	Microwaves	16 02 14	1.151
Transfer Station	Batteries (Lithium/Lithium - Ion)	16 06 05	6.707
Transfer Station	Discarded WEEE Containing Haz Components	20 01 35*	1.343
Transfer Station	Batteries (Nickel Cadmium)	16 06 02*	25.101
Transfer Station	Solder Lead Free with Ag	12 01 13	0.104
Transfer Station	Nickel Residues	12 01 03	0.302
Transfer Station	Printer & Toner Cartridges	16 02 16	0.458
Transfer Station	Cobalt Chrome Extractor Dust (1)	12 01 04	37.981
Transfer Station	E-Scrap for Dismantling	16 02 16	5.521
Transfer Station	Plastic Scrap (from IT)	16 02 16	18.741
Transfer Station	LHA - Large Household Appliances	16 02 14	4.538
Transfer Station	Batteries (Unsorted)	20 01 33*	6.133
Transfer Station	Mixed Metal Scrap	16 02 14	1.013
Transfer Station	Titanium Scrap	12 01 03	0.207
Transfer Station	Mixed Metal Scrap	16 02 14	2.170
Transfer Station	IC Scrap	16 02 16	0.288
Transfer Station	Stainless Steel Scrap	19 12 03	2.208
Transfer Station	Plastic Scrap	19 12 04	0.693
transfer Station	Microfiche	16 02 16	1.098
Transfer Station	Steel Scrap	12 01 01	21.950
Transfer Station	Cardboard Packaging	15 01 01	0.030
Transfer Station	Brass Scrap	12 01 03	6.817
Transfer Station	Tungsten Carbide Tools	12 01 03	0.497
Transfer Station	Cobalt Chrome Filters	12 01 04	2.910
Transfer Station	Capacitors	16 02 09*	0.889
Transfer Station	Cardboard Packaging	15 01 01	0.277
Transfer Station	Cobalt Chrome Sponge	12 01 04	0.158
Transfer Station	Inconel Turnings	12 01 03	1.615
Transfer Station	Silvered Copper Wire	12 01 03	4.353
Transfer Station	SHA - Small Household Appliances	20 01 36	41.352
Transfer Station	CRT (TVs & Monitors)	20 01 35*	296.080
Transfer Station	LHA (Fridges)	20 01 23*	123.081
Transfer Station	Fluorescent Tubes & Bulbs	20 01 21*	12.882
<b>Total</b>			<b>25,629.338</b>

## *Waste Despatched in 2015*

Description of Waste	EWC	Qty Tonnes
Solder Lead Free	12 01 13	3.065
Cobalt Chrome Extractor Dust	12 01 20*	130.540
Spent grinding bodies	12 01 20*	118.530
Waste Oil	13 02 08*	31.360
Cardboard Packaging	15 01 01	56.580
Wooden Packaging	15 01 03	117.690
Mixed Packaging	15 01 06	16.500
Fridges	16 02 11*	3,055.480
IT Equipment (Flat Screen - Monitor)	16 02 13*	525.260
IT Equipment (CPUs)	16 02 14	915.770
Light Iron Steel Scrap	16 02 14	2,567.550
Steel Scrap LHA	16 02 14	7,715.600
CRT Glass	16 02 15*	1,691.140
NFM WEEE Scrap	16 02 16	354.160
NFM WEEE Assemblies	16 02 16	2,825.876
Pb Acid Batteries	16 06 01*	660.920
Batteries (Nickel Cadmium)	16 06 02*	86.665
Batteries (Fence)	16 06 04	46.500
Batteries Non Haz (alkaline)	16 06 04	359.381
Batteries (Lithium)	16 06 05	31.456
Batteries (Lithium - Ion)	16 06 05	5.933
Steel Scrap Other	19 12 02	182.540
NFM Aluminium Scrap	19 12 03	938.998
Stainless Steel Scrap	19 12 03	323.871
NFM Copper Scrap	19 12 03	8.466
Plastic Scrap	19 12 04	1,611.520
CRT Plastic	19 12 04	1,078.890
Waste to Energy - MT Residue	19 12 12	1,462.801
Fluorescent Tubes & Bulbs	20 01 21*	154.530
Smoke Detectors	20 01 35*	0.167
<b>Total</b>		<b>27,077.739</b>



## *Waste in Stock in 2015*

<b>Material Description</b>	<b>EWC</b>	<b>Qty (Tonnes)</b>
Sludges containing dangerous substances	06 05 02*	0.412
Waste not specified (graphite)	06 13 99	7.669
Sludges and filter cakes other than those mentioned in 11 01 09	11 01 10	12.000
Ferrous metal filings and turnings	12 01 01	10.963
Non-ferrous metal filings and turnings	12 01 03	102.657
Non-ferrous metal dust and particles	12 01 04	11.596
Waste blasting material other than those mentioned in 12 01 16	12 01 17	12.422
Transformers and Capacitors containing PCBs	16 02 09*	32.751
Discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 12 (Flatscreens)	16 02 13*	2.319
Discarded equipment other than those mentioned in 16 02 09 to 16 02 13	16 02 14	106.024
Discarded equipment (CRT Glass)	16 02 15*	0.14
Components removed from discarded equipment other than those mentioned in 16 02 15	16 02 16	103.83
Discarded inorganic chemicals containing dangerous substances (CRT phosphorus powder)	16 05 07*	9.100
Batteries (Lead)	16 06 01*	2.643
Batteries (Nickel Cadmium)	16 06 02*	0.131
Batteries (Alkaline)	16 06 04	2.309
Batteries (Lithium/Lithium - Ion)	16 06 05	0.356
Batteries (Nickel Metal Hydride)	16 06 05	3.299
Spent catalysts	16 08 01	0.395
Spent catalysts	16 08 01	10.000
Ferrous metal	19 12 02	38.659
Non-ferrous metal	19 12 03	410.130
Plastic and rubber resulting from mechanical treatment of waste	19 12 04	12.716
Other wastes (including mixtures of materials) from mechanical treatment	19 12 12	118.342
Discarded equipment containing chlorofluorocarbons	20 01 23*	3.145
Batteries (Unsorted)	20 01 33*	2.288
Discarded equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	0.999
Discarded electrical and electronic equipment	20 01 36	9.459
Discarded inorganic chemicals containing dangerous substances	16 05 07*	13.350
Discarded equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (Smoke Detectors)	20 01 35*	0.102
<b>Total</b>		<b>1,040.206</b>

# **APPENDIX 3**

*PRTR Report for 2015*



Environmental Protection Agency

| PRTR# : W0113 | Facility Name : KMK Metals Recycling Limited | Filename : W0113\_2015 (1).xls | Return Year : 2015 |

[Guidance to completing the PRTR workbook](#)

# PRTR Returns Workbook

Version 1.1.19

<b>REFERENCE YEAR</b>	2015
-----------------------	------

## 1. FACILITY IDENTIFICATION

Parent Company Name	KMK Metals Recycling Limited
Facility Name	KMK Metals Recycling Limited
PRTR Identification Number	W0113
Licence Number	W0113-04

### Classes of Activity

No.	class name
-	Refer to PRTR class activities below

Address 1	Cappincur Industrial Estate
Address 2	Daingean Road
Address 3	Tullamore
Address 4	
	Offaly
Country	Ireland
Coordinates of Location	-7.462581076 53.27421423
River Basin District	IEGBNISH
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
<b>AER Returns Contact Name</b>	Anthony Meehan
<b>AER Returns Contact Email Address</b>	anthony@qedeng.ie
<b>AER Returns Contact Position</b>	Environmental Consultant
<b>AER Returns Contact Telephone Number</b>	04772060
<b>AER Returns Contact Mobile Phone Number</b>	
<b>AER Returns Contact Fax Number</b>	
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	70
<b>User Feedback/Comments</b>	Differences in releases to water are due to interceptor upgrades/ desludging. Further info given in AER. Reduction in air emissions due to variability of material processed each year. 'treatment & transfers of waste' tab to remain confidential.
<b>Web Address</b>	

## 2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(a)	Installations for the recovery or disposal of hazardous waste
50.1	General

## 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

## 4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	
--	--

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION B : REMAINING PRTR POLLUTANTS**

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)**

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	A2-5 Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
244	Total Particulates	M	ALT	ISEN 13264: 2004	16.4	16.4	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

**Additional Data Requested from Landfill operators**

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T (Total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill:	KMK Metals Recycling Limited				
Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Code	Designation or Description	Facility Total Capacity m3 per hour
	Total estimated methane generation (as per site model)	0.0			N/A
	Methane flared	0.0			0.0 (Total Flaring Capacity)
	Methane utilised in engine's	0.0			0.0 (Total Utilising Capacity)
	Net methane emission (as reported in Section A above)	0.0			N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Date on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
13	Total phosphorus	C	ALT	EW146 Spectrophotometry method (colorimetry)	1,208	1,208	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO WATERS					Please enter all quantities in this section in KGs						
POLLUTANT		Method Used			QUANTITY						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point				T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					CX	DX	E	F			
240	Suspended Solids	C	ALT	APHA/AWWA Standard Methods Determination of TPH by Infra Red Spectroscopy	3.435	51.308	49.441	0.0	104.184	0.0	0.0
324	Mineral oils	C	ALT	APHA 5210B	1.717	3.56	4.936	0.0	10.213	0.0	0.0
303	BOD	C	ALT	4500 NH3 G, Automated Phenate Method	0.0	0.0	0.0	1.312	1.312	0.0	0.0
238	Ammonia (as N)	C	ALT		0.0	0.0	0.0	0.762	0.762	0.0	0.0
					0.0	0.0	0.0	0.0	0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

[ PRTFR - W0113 ] Facility Name : KMK Metals Recycling Limited | Filename : W0113\_2015 (1).xls | Return Year : 2015 |

30-03-16 10:13

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non-Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non-Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination I.e. Final Recovery/ Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	06 05 02	Yes	0.0	sludges from on-site effluent treatment containing dangerous solutions	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
To Other Countries	07 07 10	Yes	0.0	other filter cakes and spent absorbents	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Belgium	.....Belgium
To Other Countries	12 01 13	No	3.065	welding wastes	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Belgium	.....Belgium
To Other Countries	12 01 13	No	0.0	welding wastes	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Belgium	.....Belgium
To Other Countries	12 01 20	Yes	130.54	spent grinding bodies and grinding materials containing dangerous substances	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,?.....Belgium	.....Belgium
To Other Countries	12 01 20	Yes	118.53	spent grinding bodies and grinding materials containing dangerous substances	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,?.....Belgium	.....Belgium
To Other Countries	12 01 20	Yes	0.0	spent grinding bodies and grinding materials containing dangerous substances	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Belgium	.....Belgium
Within the Country	13 02 08	Yes	31.36	other engine, gear and lubricating oils	R3	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
Within the Country	13 05 03	Yes	0.0	interceptor sludges	D9	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
Within the Country	13 05 08	Yes	17.04	mixtures of wastes from grit chambers and oil/water separators	D9	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
Within the Country	15 01 01	No	56.58	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
Within the Country	15 01 02	No	0.0	plastic packaging	R3	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
Within the Country	15 01 03	No	117.69	wooden packaging	R3	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
Within the Country	15 01 06	No	16.5	mixed packaging	R5	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Ireland	.....Ireland
To Other Countries	16 02 11	Yes	3055.48	discarded equipment containing chlorofluorocarbons, HCFC, HFC	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Belgium	.....Belgium

To Other Countries	16 02 11	Yes	discarded equipment containing 0.0 chlorofluorocarbons, HCFC, HFC	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information, Belgium, Belgium
To Other Countries	16 02 11	Yes	discarded equipment containing 0.0 chlorofluorocarbons, HCFC, HFC	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information, Belgium, Belgium
To Other Countries	16 02 11	Yes	discarded equipment containing 0.0 chlorofluorocarbons, HCFC, HFC	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information, Belgium, Belgium
To Other Countries	16 02 13	Yes	discarded equipment containing hazardous components (16) other than those 525.25 mentioned in 16 02 09 to 16 02 12	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information, Belgium, Belgium
Within the Country	16 02 13	Yes	discarded equipment containing hazardous components (16) other than those 0.0 mentioned in 16 02 09 to 16 02 12	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information, Ireland, Ireland
To Other Countries	16 02 14	No	discarded equipment other than those 915.77 mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	16 02 14	No	discarded equipment other than those 2567.55 mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	16 02 14	No	discarded equipment other than those 7715.6 mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 14	No	discarded equipment other than those 0.0 mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 14	No	discarded equipment other than those 0.0 mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 15	Yes	hazardous components removed from discarded equipment 1691.14	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information, Belgium, Belgium
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 354.16 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	16 02 16	No	components removed from discarded equipment other than those mentioned in 2825.876 16 02 15	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	



To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 02 16	No	components removed from discarded equipment other than those mentioned in 0.0 16 02 15	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 06 01	Yes	660.92 lead batteries	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,,,,,,,,,Belgium ,,,,,,Belgium
To Other Countries	16 06 02	Yes	86.665 Ni-Cd batteries	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,,,,,,,,,Belgium ,,,,,,Belgium
To Other Countries	16 06 04	No	46.5 alkaline batteries (except 16 06 03)	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 06 05	No	31.456 other batteries and accumulators	R12	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	16 10 02	No	aqueous liquid wastes other than those mentioned in 16 10 01	D9	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 02	No	182.54 ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 02	No	0.0 ferrous metal	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	938.998 non-ferrous metal	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	323.871 non-ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 03	No	8.466 non-ferrous metal	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 03	No	0.0 non-ferrous metal	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	0.0 non-ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	0.0 non-ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	0.0 non-ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	0.0 non-ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 03	No	0.0 non-ferrous metal	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	1611.52 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	



Within the Country	19 12 04	No	1078.89 plastic and rubber	R5	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	19 12 04	No	0.0 plastic and rubber	R5	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 09	No	0.0 minerals (for example sand, stones) other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R5	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 12	No	1462.801 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 12	No	0.0 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	19 12 12	No	0.0 11	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
Within the Country	20 01 21	Yes	154.53 fluorescent tubes and other mercury-containing waste batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,,,,,,,,,Ireland .....Ireland
Within the Country	20 01 33	Yes	0.0 these batteries	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,,,,,,,,,Ireland .....Ireland
To Other Countries	16 06 04	No	359.381 alkaline batteries (except 16 06 03)	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	
To Other Countries	16 06 05	No	5.933 other batteries and accumulators	R12	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	

To Other Countries	20 01 35	Yes	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing hazardous components	0.167	R12	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Confidential Information,.....Belgium .....Belgium
--------------------	----------	-----	---	-------	-----	---	---------	--------	---------------------------------------	---	--

\* Select a row by double-clicking the Description of Waste then click the delete button