ANNUAL ENVIRONMENTAL REPORT 2016

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 2016-DECEMBER 2016

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1.0 REPORTING PERIOD

The reporting period for this Annual Environmental Report is 1st January 2016 to 31st of December 2016.

2.0 EMISSIONS FROM THE FACILITY

A summary and interpretation of all emissions monitoring carried out at the facility during 2016 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 02nd June to the 30th June 2016 by Q.E.D. Engineering Ltd, in accordance with Waste Licence Requirements (Table 1).

Table 1: Dust Monitoring Licence Requirements

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

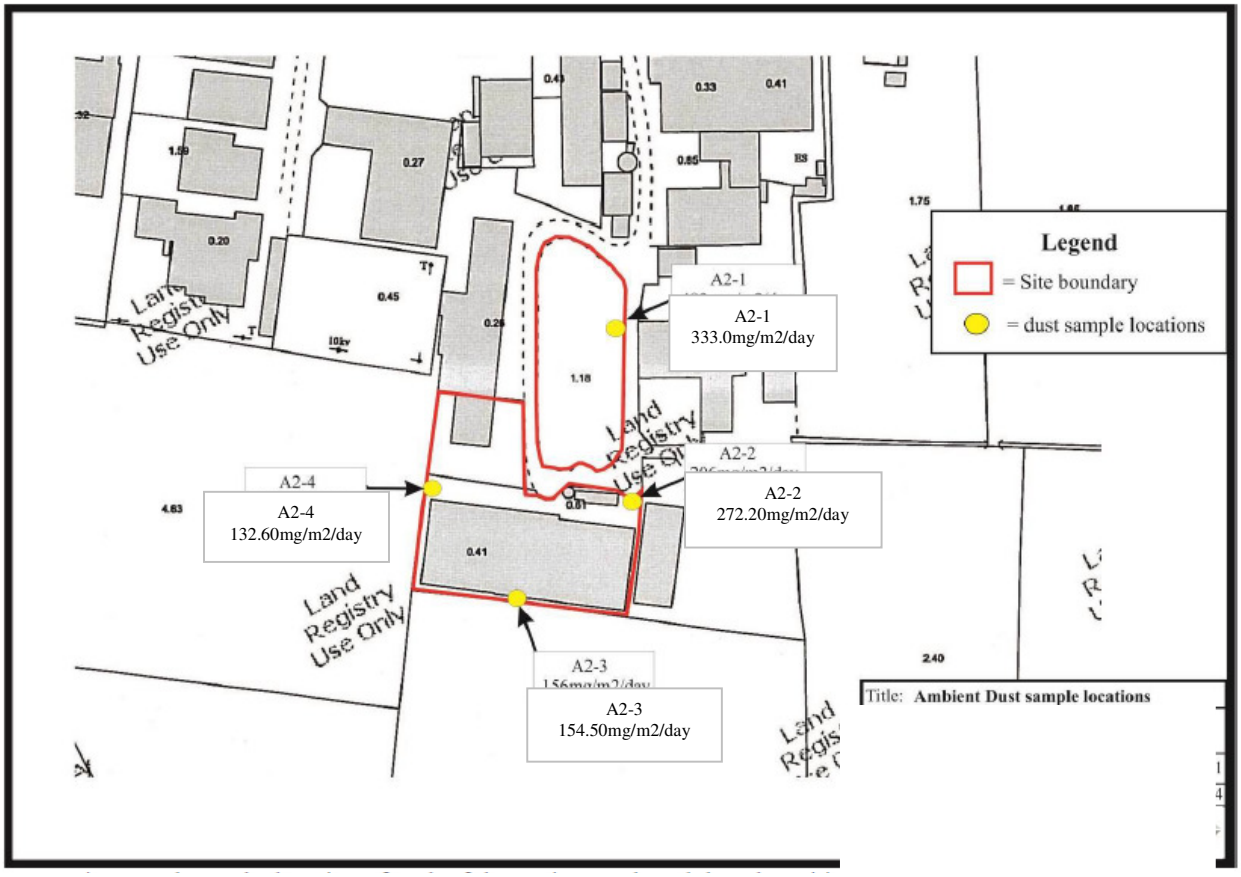
The dust monitoring was conducted during normal activity at the facility. The period of monitoring was a typical operational month at KMK with unsettled wind conditions, above average temperatures and rainfall (compared to the long term averages [LTAs]). Hence the climatic conditions for dust creation and movement was favourable. Dust monitoring around the boundaries of the KMK site during the monitoring period showed that all four dust deposition results were below the EPA recommendation limit of $350mg/m^2/day$.

The highest result recorded was at dust monitoring location A2-1, which is situated in the E yard area on the northern boundary adjacent to the car park. Previous dust monitoring at the site has also resulted in the highest levels being recorded at this location. 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 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 relatively low. Results for all samples are broadly similar.

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Tel: 047 72060

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 2016: 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 2016

Date	Company	Ref	Result (mg/m3)	Limit Value (mg/m3)
20/01/16	Glenside Environmental	Q1	<0.46	10
27/04/16		Q2	<0.58	10
13/07/16		Q3	<0.30	10
02/11/16		Q4	<0.38	10

As can be seen from Table 3, results are extremely low throughout 2016, 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], $L(A)_{10}$ [30 minutes], $L(A)_{90}$ [30 minutes] and 1/3 Octave Band Analysis	Annually	Standard Method[Note1]

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 $L_{Ar,T}$[note2] (30minutes)	Evening time dB $L_{Ar,T}$[note2] (30minutes)	Night-time dB dB $L_{Ar,T}$[note2] (15-30minutes)
55	50	45[note1]

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: $L_{Ar,T}$ is defined as the Related Noise Level, equal to the $L_{(A)eq}$ 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: $L_{(A)eq[30\ minute]}$, $L_{(A)10[30\ minute]}$, $L_{(A)90[30\ minute]}$ and 1/3 Octave Band analysis.

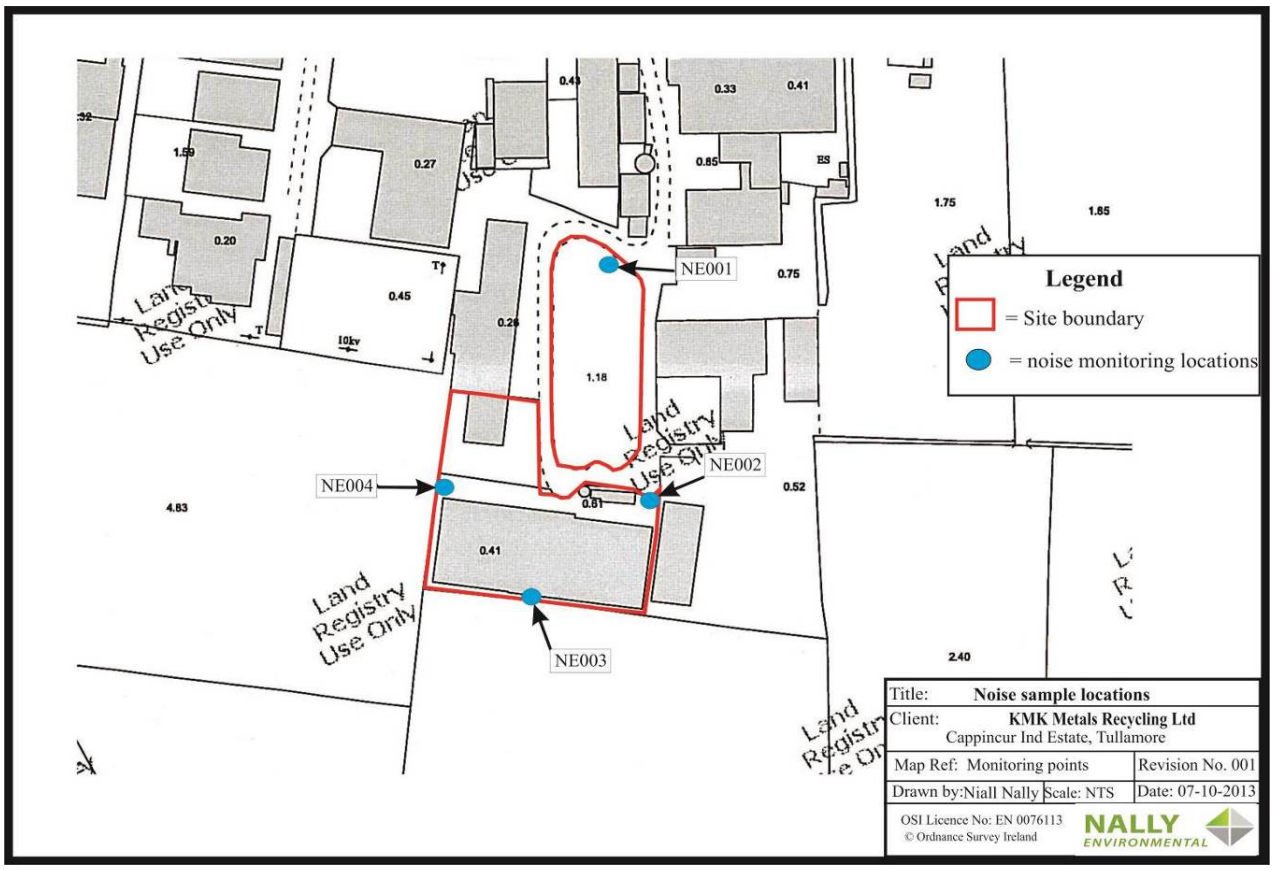
To ensure that all monitoring positions could be adequately monitored, and based upon normal best practice for noise measurements, as issued by the EPA, the night time measurement was a 15 minute period at each location.

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 22/11/16, between 13:10 – 17:00, evening monitoring took place on 22/11/16 between 21:15 – 23:00 and night time monitoring took place on 22/11/16 – 23/11/16 between 23:00 – 00:20. 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 2016



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.

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Tel: 047 72060

Table 5 – Compliance table of results with licence limits

Daytime			
Noise Location	**Start Time**	**KMK** note1 **$L_{Ar,T}$**	**Licence limits** note2 **$L_{Ar,T}$**
NE001	13.12	60	55
NE001	13.43	58	55
NE001	14.14	59	55
NE001 Arithmetic Average		59	55
NE002	13.25	68	55
NE002	13.58	68	55
NE002	14.50	63	55
NE002 Arithmetic Average		66	55
NE003	15.27	63	55
NE003	15.57	60	55
NE003	16.27	61	55
NE003 Arithmetic Average		61	55
NE004	14.55	66	55
NE004	15.30	68	55
NE004	16.00	66	55
NE004 Arithmetic Average		67	55

Evening Time			
Noise Location	**Start Time**	**KMK** note1 **$L_{Ar,T}$**	**Licence limits** note2 **$L_{Ar,T}$**
NE001	21.15	53	50
NE002	21.20	56	50
NE003	22.11	48	50
NE004	22.14	49	50

Night Time			
Noise Location	**Start Time**	**KMK** note1 **$L_{Ar,T}$**	**Licence limits** note2 **$L_{Ar,T}$**
NE001	23.40	40	45
NE001	23.58	41	45
NE001 Arithmetic Average		41	45
NE002	23:04	39	45
NE002	23.20	41	45
NE002 Arithmetic Average		40	45
NE003	23.00	48	45
NE003	23.16	47	45
NE003 Arithmetic Average		48	45
NE004	23.36	43	45
NE004	23.52	43	45
NE004 Arithmetic Average		43	45

Note1: $L_{Ar,T}$ is defined as the Related Noise Level, equal to the $L_{(A)eq}$ 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.

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 $L_{Aeq(30\ minute)}$ varied between 58-68dB at boundary locations. The highest levels were noted at station NE004 (66, 68 and 66dB) on consecutive occasions. The elevated levels were as a result of construction activity in the CRT building (small generator operating) near the monitoring location and from general WEEE handling and dismantling.

Station NE001, located on the northern boundary, had noise levels $L_{Aeq(30\ minute)}$ ranging from 58-60 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 at Ravenhill couriers adjacent to this monitoring location.

Station NE002, located on the east boundary, resulted in LAeq(30 minute) values ranging from 63-68 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.

Station NE003, located on the south boundary behind the D-Hanger building, resulted in $L_{Aeq(30\ minute)}$ values ranging from 60-63 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.

The **evening time** measurements resulted in $L_{Aeq(30\ minute)}$ values ranging from 48-56 dB which were lower than the daytime readings. The highest $L_{Aeq(30\ minute)}$ was at station NE002 at 56 dB and the noise here was due to site activities such as processing and handling of WEEE in D-Hanger, and forklifts moving material. The lowest was at station NE003 where an $L_{Aeq(30\ minute)}$ of 48 dB was measured i.e. behind the D-Hanger building.

The **night-time** measurements resulted in $L_{Aeq(30\ minute)}$ values ranging from 39-48 dB. The highest noise level in $L_{Aeq(15\ minute)}$ was 48dB at NE003 boundary location whilst the lowest noise level in $L_{Aeq(15\ minute)}$ was 39dB 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 was no tonal or impulsive noise identified during the survey. These are summarised in the following Table 7.

Table 7: Tonal Features Identification

Monitoring Station	**Day-time Tonal Features (Frequency & Pressure)**	**Evening-time Tonal Features (Frequency & Pressure)**	**Night-time Tonal Features (Frequency & Pressure)**	**Comments**	**Rating level ($L_{ar,T}$) as adjusted by adding 5dB to the relevant L_{Aeq}**
NE001	No identified tones	No identified tones	No identified tones	No tones identified	Not applicable
NE002	No identified tones	No identified tones	No identified tones	No tones identified	Not applicable
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 22nd and 23rd of November 2016.
- 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 noise levels. The noise measured in L_{Aeq} at NE001 and NE002 exceeded the licence requirements (Schedule B3) for evening time noise levels. All night-time noise readings at Boundary Noise Locations, with the exception of NE003 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 no tonal or impulsive noise identified during the survey.

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
	DX	E	F	
27/01/16			Yes	Alcontrol Laboratories
10/02/16	Yes	Yes		Alcontrol Laboratories
10/05/16			Yes	Alcontrol Laboratories
30/06/16	Yes	Yes		Alcontrol Laboratories
08/09/16			Yes	Alcontrol Laboratories
03/10/16	Yes	Yes		Alcontrol Laboratories
23/11/16	Yes	Yes	Yes	ALS Environmental

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	**27/01/16**	**10/05/16**	**08/09/16**	**23/11/16**	**Emission Limit values (ELVs)**
Parameter	**F**	**F**	**F**	**F**	
Total dissolved solids (TDS) (mg/l)	1890	1480	1670	2350	**-**
Suspended Solids (mg/l)	<2	<6	<2	2	-
BOD (mg/l)	<1	<1	<1	<1	5
Ammonia as N (mg/l)	2.02	1.02	0.0341	0.116	1
Nitrates as N (mg/l)	71.9	85.5	45.0	74.5	-
Total phosphorous as P (mg/l)	0.939	1.85	1.74	3.5	1

Table 12: Storm Water Monitoring Results

Date		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Emission Limit values (ELVs)	Interim Warning Trigger Value (90%ile)	Interim Action Trigger Value (95%ile)
Parameter	**Units**	**DX**	**E**	**DX**	**E**	**DX**	**E**	**DX**	**E**			
Suspended Solids	mg/l	10.5	<9	<2	4.5	11	3.5	<2	11	35		
Ammonia as N	mg/l	0.159	0.698	0.295	**56.2** 0.0253	1.9	1.12	1.24	2.23	-	2.33	3.06
COD	mg/l	19.4	34.8	19.6	34.9	50	25.9	32.2	66.8	-	61.9	80.1
Conductivity	mS/cm	0.184	0.393	0.199	1.13	0.509	0.37	0.551	0.575	-	0.985	1.238
Aluminium	ug/l	29.3	71.9	21.3	174	22.6	278	32	354	-	208	304
Arsenic	ug/l	<0.12	0.904	0.28	0.989	0.837	1.83	0.779	1.64	-	1.9	3
Chromium	ug/l	0.859	1.3	1.15	0.879	1.37	<1.2	<1.2	<1.2	-	10	17
Copper	ug/l	8.17	8.03	1.36	**88.2** 11.5	<0.85	7.17	2.68	45.8	-	30	39
Lead	ug/l	18.0 **27.6** 11 4.04	5.14	4.39	2.99	2.96	3.15	4.89	**19.9** 18.8 9.28	-	11.8	15.6
Nickel	ug/l	2.98	13.6	8.51	45.6	11.0	6.32	8.54	16.0	-	26.0	42
Zinc	ug/l	105	431 123	116	**562** 41.9	25.1	47.5	35.7	117	-	270	431
Mercury	ug/l	0.0436	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	-	0.0615	0.0796
Iron	mg/l	0.0778	0.157	0.144	0.0339	0.379	0.0584	0.322	0.278	-	0.562	1.043
Mineral Oil	mg/l	<1	<1	<1	1.14	<1	<1	<1	<1	2		
pH	pH units	7.94	7.98	7.01	8.62	7.71	8.62	8.1	8.13	-		

Interpretation of Quarterly Results 2016

Discharges from DX and E were below the license emission limit values for suspended solids and mineral oil during all monitoring periods in 2016.

Lead levels at discharge DX in the 1st Quarter 2016 and at discharge E in the 4th Quarter 2016 exceeded the Action Trigger Value for lead. Repeat samples were collected following the cleaning of drains and gullies and the results were below the warning and action trigger values.

Zinc, Copper and Ammonia levels at discharge E in the 2nd Quarter 2016 exceeded the applicable Action Trigger Values. Repeat samples were collected following an examination of potential emission sources in yard E and all results were below the warning and action trigger values.

All other monitoring results were within 1.2 times the applicable Action Trigger Values.

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 were above the license emission limit value during all monitoring periods in 2016 with the exception of the 1st Quarter monitoring event. The results for Ammonia were below the license emission limit value during all monitoring periods in 2016 with the exception of the 1st Quarter monitoring event when the result was above the license emission limit value. 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 was clear that the delicate balance of dosing that had been practiced in the WWTS was not effective at maintaining Ammonia and Total Phosphorous within license limit values. For this reason, the site applied for a Technical Amendment to Schedule B.2 of their licence on 15th of February 2016. The proposed amendment related to the parameters and the Emission Limit Values set in Schedule B.2 for Emission Point Reference No: F (treated sanitary waste water). A decision by the EPA not to grant the proposed technical amendment was made on the 10th January 2017. Following this decision, Molloy Environmental Systems along with QED engineering Ltd. were engaged to assess further treatment options to KMKs WWTP. It was decided that one particular treatment option should be trialed by Molloy Environmental Systems at laboratory scale to determine if this treatment would reduce the Total Phosphorus levels below the licence ELV. The trials were completed on 14th March 2017 and were a success. The project is now at design stage and a Specified Engineering Works proposal will be issued to the EPA in April 2017 prior to the commencement of the installation.

2.5 Groundwater

KMK has two wells: GW1 and GW2, both of which are tapped onsite and were sampled on 23rd of November 2016. The full Annual Groundwater Monitoring Report 2016 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, with the exception of Nickel (41.5µg/l) and Arsenic (21.1µg/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, 2014 and 2015 AERs 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 2016

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 2016 is given below:

Table 14: Summary of Waste Received in 2016

Source of waste accepted.	Total quantities (tonnes)
Civic amenity sites	8,505.844
Commercial	17,701.01
Industrial	568.522
Transfer Stations	4,179.867
Waste Industry	322.068
Total	31,277.31

A full breakdown of waste types and quantities accepted for 2016 is included in Appendix 2 attached to this AER.

The total quantity received was 31,277.31 tonnes for 2016.

5.2 Waste Despatched from the Facility for Recovery in 2016

The total quantity of waste despatched from the facility in 2016 was 31,609.26 tonnes. A summary of all waste despatched during 2016 is included in Appendix 2 attached to this AER. Please note that there is a carry-over of waste material from the year ending 2016 into the beginning of 2017 (837.40 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

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 2017

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 processes weee to the WEEELABEX Standard for the Treatment of Waste Electrical and Electronic Equipment as required under ***section 22 of the Irish WEEE Regulations; STATUTORY INSTRUMENTS S.I. No. 149 of 2014 EUROPEAN UNION (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2014***

KMK confirms that we meet the conditions for the storage of WEEE as required by ***SCHEDULE 8, TECHNICAL REQUIREMENTS FOR STORAGE (INCLUDING TEMPORARY STORAGE OF WEEE PRIOR TO TREATMENT)*** of the Irish WEEE Regulations: ***STATUTORY INSTRUMENTS S.I. No. 149 of 2014 EUROPEAN UNION (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2014***

With reference to ***SCHEDULE 9, SELECTIVE TREATMENT FOR MATERIALS AND COMPONENTS OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT***, I can confirm that we comply with the requirements for the removal and selective treatment of certain substances, preparations and components, such as batteries, cathode ray tubes, external electric cables etc as required by the Irish WEEE Regulations: ***STATUTORY INSTRUMENTS S.I. No. 149 of 2014 EUROPEAN UNION (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2014***

With reference to ***SCHEDULE 10, MINIMUM RECOVERY TARGETS IN ACCORDANCE WITH ARTICLE 11 OF THE DIRECTIVE***, KMK achieved the minimum recovery targets and minimum component, material and substance reuse and recycling targets for 2015 and expects to exceed same over the next three years as required by the Irish WEEE Regulations: ***STATUTORY INSTRUMENTS S.I. No. 149 of 2014 EUROPEAN UNION (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT) REGULATIONS 2014***

KMK METALS-RECYCLING

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

Our current recovery rates are as follows:

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

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

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

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

NSAI Certified
NSAI Certified
NSAI Certified

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 2015 to 2016 inclusive and for comparison purposes.

Table 15: Breakdown of the Energy Consumption for the Year

Consumption in kWh*					
	2015	% of total		2016	% of total
Electricity	687,560.00	37.78%		578,760.00	31.07%
Kerosene	57,934.08	3.18%		62,500.84	3.36%
Diesel	1,074,520.20	59.04%		1,221,582.34	65.58%
Total	**1,820,014.28**	**100.00%**		**1,862,843.19**	**100.00%**
***Energy conversion factors 2016: kerosene 9.821 kWh/L, diesel 10.169 kWh/L**					

In summary, the following trends are noted:

Electricity consumption in 2016 decreased by 6.7% compared to 2015. Kerosene consumption increased by 0.2% and Diesel consumption increased by 6.5%. The reasons for this are that:

- The decrease in electricity consumption in 2016 compared to 2015 can be attributed to better energy management across the site.
- Kerosene is used for the heating of office space. The levels of kerosene used in 2015 and 2016 were relatively similar.
- The increase in diesel consumption in 2016 was due to the LHA Baler running from 06:00 – 22:00 during most days in 2016. In 2015 the LHA Baler was running from 06:00 – 16:00. Overall there is a slight increase due to an increase in material intake and processing compared to that carried out in 2015.

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 2016 monitoring event showed that all four dust deposition results were below the EPA recommendation limit of 350mg/m^2/day.

9.0 SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS AND ENVIRONMENTAL MANAGEMENT PROGRAMME

The schedule of Objectives and Targets / Environmental Management Programme for 2016 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 2016; 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 2017 is also presented in Table 17.

Table 16: Environmental Objectives and Targets 2016

ID	AER OBJECTIVES AND TARGETS 2016	Timescale	Resp	Status
13-5	Energy Management Plan – drafted, to be implemented 2016	October 2016	**CD + OB**	Incomplete
13-3	Implement new Flatscreen Process (Currently on hold by Manufacturer.)	TBC.	**CD + KK**	Ongoing
15-5-2	Prepare an Internal Audit Schedule to schedule auditing as per procedure	May 2016	**CD**	Complete
ENVIRONMENTAL				
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	**CD + KK**	Incomplete
16-E-2	Prepare compliance checklists to coincide with information held within on-line EHS Legal Register	July 2016	**CD**	Complete
16-E-3	Prepare subcontracted Waste Collection Permit Holders overview to include annual insurance details, WCP expiry dates and permitted EWC codes	October 2016	**CD**	Complete
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	**CD + KS**	Complete
QUALITY				
16-Q-1	Review and update process flow diagrams for all WEEE fractions entering KMK	May 2016	**CD + RH**	Incomplete
16-Q-2	Prepare and distribute Customer Satisfaction Surveys	May 2016	**CD + KK**	Ongoing
16-Q-3	Prepare Customer KPI Register	September 2016	**CD**	Incomplete
SAFETY				
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	**RH**	Complete
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	**RH**	Incomplete
16-S-3	Install improved fire extinguisher units in battery process area and in the WEEE Plant for damaged batteries	March 2016	**RH**	Complete
16-S-4	Increase in Accident/Incident Reporting with a view to reducing the number of accidents occurring from repetitive causes	December 2016	**RH**	Complete

Table 17: Environmental Objectives and Targets 2017

1.1 General					
#	**Aspect**	**Objectives**	**Target**	**Time Frame**	**Responsibility**
G-1-17	DPMS Audit	Amalgamation of existing systems with the DPMS to ensure further accuracy for reporting purposes.	An audited DPMS system that has been updated to ensure higher levels of accuracy and efficiency.	July 2017	KMK Management Compliance Department
G-2-17	KMK Kilbeggan	Development of the Kilbeggan facility as a contingency measure for operations at KMK Tullamore.	Suitable steps taken towards obtaining an EPA Licence for the Kilbeggan facility.	December 2017 leading into 2018	KMK Management Compliance Department
G-3-17	KMK Kilbeggan	Preparation for flat screen processing and re-use activity at KMK Kilbeggan.	Compliant flat screen processing and re-use activity at KMK Kilbeggan with achievement of the requirements of the PAS 141:2011 Standard.	December 2017 leading into 2018	KMK Management Compliance Department

1.2 Environment					
#	**Aspect**	**Objectives**	**Target**	**Time Frame**	**Responsibility**
E-1-17	Energy	Basic Energy Management Plan – to be drafted and implemented in 2017.	Prevention of excess energy wastage and reduction in energy costs.	December 2017	OB
E-2-17	Food Waste	Determining the feasibility of a food waste bin service for the canteens.	A reduction in all food waste on-site, supporting our commitment to zero landfill.	September 2017	OB
E-3-17	IMS	Meet the requirements of ISO 14001 and 9001 :2015.	To improve the IMS system using the requirements of the new standards as required for continued NSAI Certification.	December 2017	OB
E-4-17	Monitoring	Full graphing of Environmental Report Data.	To clearly and concisely display KMK's overall environmental performance.	November 2017	OB

1.3 Occupational Health & Safety					
#	**Aspect**	**Objectives**	**Target**	**Time Frame**	**Responsibility**
H&S-1-17	Training	General site induction work instruction and supervisor training checklist.	Improved training of new employees and a log of training provided by site supervisors.	August 2017	MF
H&S-2-17	Accidents	Improved accidents investigation.	A prevention/reduction in the number of workplace accidents and lost time injuries.	June 2017	MF
H&S-3-17	IMS	Implementation of ISO 45001 (formerly OHSAS 18001).	To improve the IMS system to the requirements of the new standard for compliance with NSAI Certification.	December 2017	MF OB
H&S-4-17	Contingency	Business Continuity and Disaster Preparedness Plan.	Preparedness for any adverse, unexpected or emergency situations at KMK.	October 2017	MF OB

1.4 Quality					
#	**Aspect**	**Objectives**	**Target**	**Time Frame**	**Responsibility**
Q-1-17	Operations	Review and update process flow diagrams for all WEEE fractions entering KMK.	Detailed process flows for all operations on-site.	July 2017	OB MF
Q-2-17	Customer Care	Prepare and distribute Customer Satisfaction Surveys.	Distribution of Customer Satisfaction Surveys and gathering of information for continual improvement of service.	December 2017	HW OB
Q-3-17	Customer Care	Prepare Electronic Customer Register.	A completed electronic database of customers who access the website and have regular contact with KMK.	December 2017	KM EP HW
Q-4-17	Operations	Populate Reptool system.	Waste Tracking – Prepare full material flow record as per WEEELABEX requirement to ensure material traceability to End-of-Waste status.	September 2017	KM OB

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 2016 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 2016 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 2016 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 between September 2016 and February 2017. The full report was submitted separately to the EPA.

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. Pipelines were replaced in the installation of the DX interceptor in September 2015 and pipeline integrity testing carried out in March 2017 will pinpoint any outstanding repairs required which will be completed immediately.

15.0 REPORTED INCIDENTS SUMMARY

There were two Category 1 reportable incidents during 2016 at the facility, summarised below

Table 18: Incidents Report Table during 2016

Alder Ref no	Incident reported date	Incident cause/description	Summary of Actions throughout the course of this incident history.	Incident Status
010682	30/06/16	Breach of Action Trigger Value as follows for E storm water outlet. E Ammonia as N grab sample result of 56.2mg/l and the Action Trigger Value is 3.06mg/l on the 30/06/16. E Copper grab sample result of 88.2ug/l and the Action Trigger Value is 39ug/l on the 30/06/16. E Zinc grab sample result of 562ug/l and the Action Trigger Value is 431ug/l on the 30/06/16.	The following action was taken by KMK Metals Recycling Ltd. in response to the breach of Action Trigger Value for E storm water outlet on the 30/06/16: • A sample from the attenuation tank in yard E was collected on the 15/08/16 and analysed for Ammonia, Zinc, and Copper to determine if emission levels had reduced. Sampling at discharge E is only possible during periods of rainfall, therefore sampling from the attenuation tank was carried out, which is representative of discharge E. The attenuation tank sample results which were uploaded previously show that Ammonia, Zinc, and Copper levels are all below the warning and action trigger values for the site. • QED Engineering Ltd. conducted a site visit on the 8th of September 2016 to examine potential emission sources of ammonia, Zinc, and Copper in yard E. It was noted on the site visit that refurbished IBC's used to dispense water to dampen down dust on-site contained some residue of detergent which was used by the refurbishment company to clean the IBC's. This appears to be the most likely source to have cause the unusual increase in ammonia levels on 30/06/16. In relation to emission sources for Zinc and Copper, it was noted that there is heavy movement of forklifts and lorries in E yard which have the potential to deposit particles of dust and metals onto E yard which get entrained on the wheels of vehicles as they pass through other areas of the facility. Another possible source is from the small amount of wash water that comes from the shredded materials covered storage bay in E yard. • A sample of discharge E was collected on the 3rd of October 2016. The discharge was low due to dry weather conditions. The results of this sample were all below the ELVs and trigger values for the discharge point.	Closed

Alder Ref no	Incident reported date	Incident cause/description	Summary of Actions throughout the course of this incident history.	Incident Status
011269	23/11/16	Breach of Action Trigger Value as follows for E storm water outlet. E Lead grab sample result of 19.9ug/l and the Action Trigger Value is 15.6ug/l on 23/11/16. Condition 4.3.3 states that "For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value". 1.2 times the Interim Action Trigger Value for Lead is 18.72ug/l. Therefore, the result is slightly over this level.	A sample from discharge E and the attenuation tank in yard E were collected on the 09/12/16 and analysed for Lead to determine if emission levels had reduced (laboratory certificate uploaded). Discharge E sample result was at the 1.2 times Interim Action Trigger Value and the attenuation tank sample result was below the warning and action trigger values for lead. The reduction in lead levels between the attenuation tank and discharge E is evident in these latest results. The site will clean out drains and gullies between the attenuation tank and discharge E to see if this helps to reduce levels of lead at discharge E. Sampling for the 1st Quarter 2017 will commence in early January 2017 to determine if emission levels of lead have reduced further at this discharge point following cleaning of drains. Gullies between the attenuation tank and discharge E were flushed out in January 2017. A sample of the attenuation tank and discharge E were then collected on the 30/01/17 and analysed for Lead. The Lead result for discharge E of 9.28ug/l is below the warning and action trigger values. The results are attached.	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

One complaint was received at KMK in 2016 as follows;

Date: 11/01/2016
Description: Complaint received from facility neighbour by phone call to KMK office. The complaint related to site noise at 6.45am.
Cause: Excessive noise in the early hours of operation.
Corrective Actions: An investigation was carried out to identify what caused the elevated noise levels. A site supervisor explained that stainless steel was being loaded early as the Liebherr machine would be needed for the WEEE Plant at 8:00am. The site supervisor was reminded that there is a community noise policy in place which prohibits KMK from causing elevated noise levels between the operating hours of 6am - 8am and 9pm - 10pm. The complainant was contacted by phone to explain the situation and to apologise for any inconvenience caused. The issue was further discussed with the General Manager. The Community Noise Control Policy was refreshed with all site supervisors to ensure the issue does not happen again.
Status: Closed.

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 2015 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 2016:

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	January: 1,080 February: 1,160 July: 9,740 **Total:** 11,980

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 2016.

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.

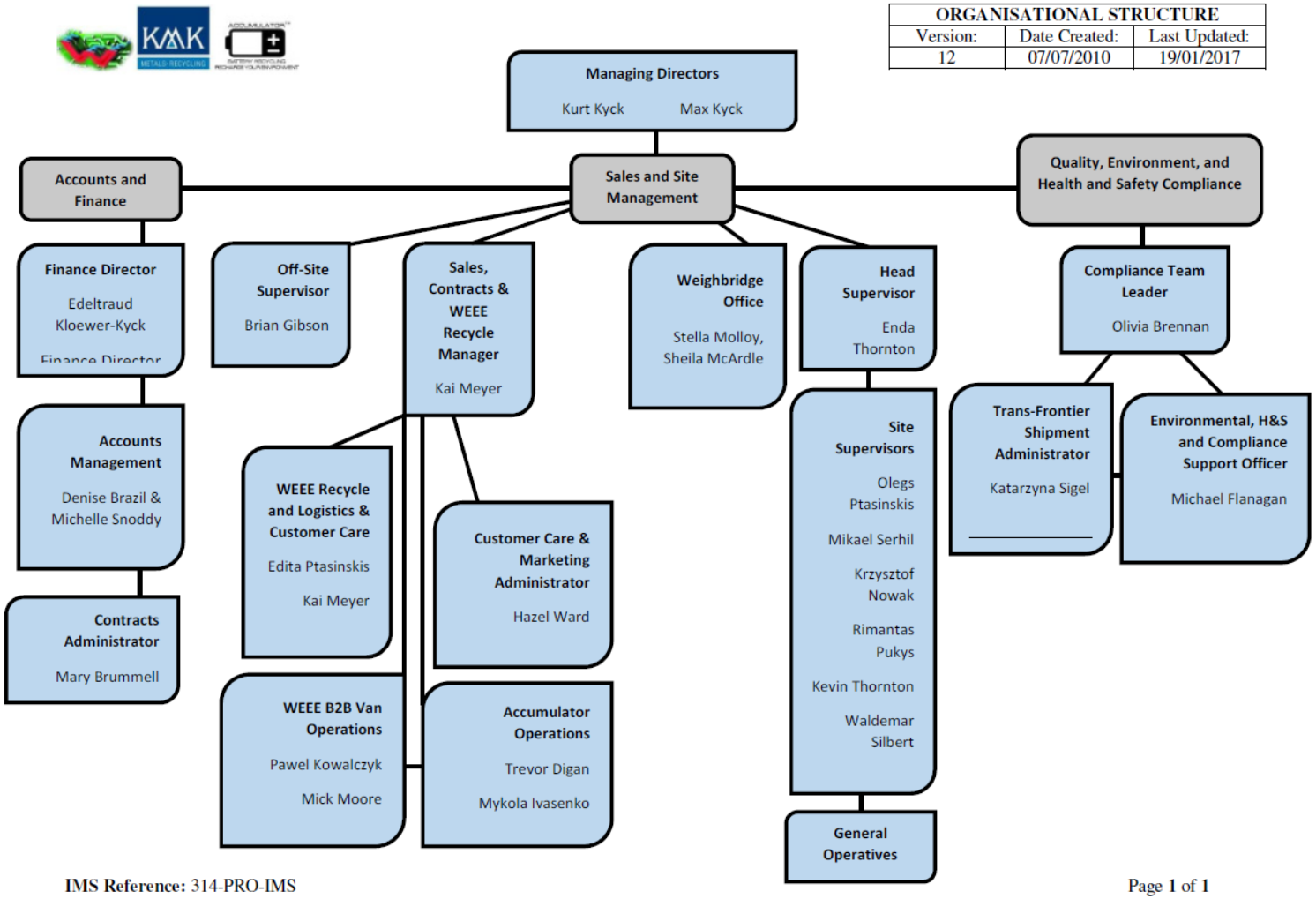
In addition, the operator has prepared a Decommissioning Management Plan (DMP) in accordance with Condition 10 of the licence. The methodology for the development of the report follows EPA guidance and it has been prepared by an independent and appropriately qualified consultant.

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 (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
    - 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 has a social media presence on Facebook and Twitter: www.facebook.com/kmk.metals/, www.twitter.com/kmkmetals?lang=en where information about the facility and current events can be followed.
    - Concern Worldwide's annual fast: KMK raised €300 in Nov 2016 for the Concern fast and participate annually in this fundraising drive.
    - Ploughing Championships: KMK has a presence annually at the National Ploughing Championships.
    - KMK is a sponsor of the Lions Club.
    - Tullamore Tractor Run 2016: KMK proudly sponsored the Tullamore Tractor Run in Aid of Dóchas Offaly Cancer Support Group.
    - Christmas Jumper Day: KMK raised €91.50 in Dec 2016 for LauraLynn childrens charity.
    - Christmas Lights Charity Appeal: KMK provided free recycling of old & broken Christmas Lights at the following locations: Bridge Shopping Centre, Tullamore and also Harbour Place Shopping Centre, Mullingar.
    - KMK advertised in the Tullamore Annual for 2016.

- Back at time of E-Voting machines, KMK donated €10,000 to Barrettstown.
- KMK have sponsored a Fashion Show annually in Drogheda annually for approx. the last 20 years.
- GOAL Duvet day – KMK have participated last year and are participating again this year in a bid to raise funds while raffling a day off among staff.
- Goal – Jersey Day, KMK participate annually during October in the GOAL football jersey day to raise funds.
- KMK participate annually in the Pink Lunch during November for the Irish Cancer Society to raise funds for this very worthwhile charity.
- KMK also support the Rotary Club in Drogheda annually, especially the meals-on-wheels for those who require home deliveries.

KMK Metals Recycling Ltd Organisational Chart



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 ENIRONMENTAL 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 2016

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

25.2 Proposed Development for 2017

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 2016

Noise Survey Report 2016

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

November 2016

Table of Contents

1. Introduction

Noise levels were measured at KMK Metals Recycling Ltd, Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly on the 22nd and 23rd of November 2016 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 $L_{Ar,T}$ (30 minutes)	Evening time dB $L_{Ar,T}$ (30 minutes)	Daytime dB $L_{Ar,T}$ (15-30 minutes)
55	50	45[Note 1]

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 22/11/16, between 13:10 – 17:00, evening monitoring took place on 22/11/16 between 21:15 – 23:00 and night time monitoring took place on 22/11/16 – 23/11/16 between 23:00 – 00:20.

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 25/5/16.
2. B&K 2238 Mediator - Class 1 Integrating Sound Level Meter, Serial No. 2343753 with Microphone 4188 Serial No. 2555128. The instrument was last calibrated on 22/01/2015.
3. A GA607 Dual Level Calibrator, Serial No. 036341 was used to calibrate the sound level meters and this was last calibrated on 25/5/16.

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 cool and sunny with a slight breeze. The average wind speed was 3.2 m/s. Weather conditions during the evening time monitoring were calm and cool with a slight breeze. The average wind speed was 1.1 m/s. Conditions for the night time monitoring were calm and cool with an average wind speed of 1.0 m/s. The wind direction during daytime monitoring was from the north, for the evening time monitoring the wind direction was from the north west and during night-time monitoring from the north 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_{Aeq} dBA	L_{A10} dBA	L_{A90} dBA	Tonal/ Impulsive	Comments
NE001	Day	13.12 – 13.42	60	62	48	No	Lorries unloading and exiting site. Forklift dropping WEEE into skip. Loading of shredded material. Reversing beepers. Cars leaving carpark within meters of monitoring location. Power washer operating at Ravenhill couriers throughout.
		13.43 – 14.13	58	60	49		
		14.14 – 14.44	59	62	50		
		Arithmetic Average Day	**59**	**61**	**49**		
	Evening	21.15 – 21.45	**53**	**56**	**43**	No	Some activity from E yard. Dumping of material at bottom of E yard. Road noise from by-pass and main Ballinagar road continuous.
	Night	23.40 – 23.55	40	44	34	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.
		23.58 – 00.13	41	41	36		
		Arithmetic Average Night	**41**	**43**	**35**		
NE002	Day	13.25 – 13.55	68	66	55	No	Movement of materials with forklift which was 5m away. Noise from steel crates on forklifts. General WEEE dismantling in C Building.
		13.58 – 14.28	68	68	56		
		14.50 – 15.20	63	67	53		
		Arithmetic Average Day	**66**	**67**	**55**		
	Evening	21.20 – 21.50	**56**	**58**	**41**	No	Lorry passing this area. Forklifts moving material, reversing beepers. WEEE handling inside D-Hanger audible. Pushing material in D Hanger.
	Night	23.04 – 23.19	39	42	35	No	No site noise audible. Traffic noise audible on by-pass road and main Ballinagar road.
		23.20 – 23.35	41	42	35		
		Arithmetic Average Night	**40**	**42**	**35**		

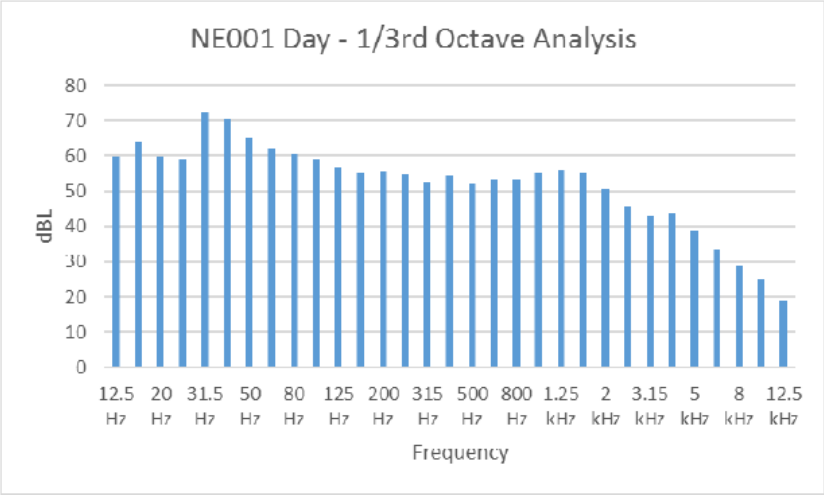
Ref. No.	Day / Night	Time	L_{Aeq} dBA	L_{A10} dBA	L_{A90} dBA	Tonal/ Impulsive	Comments
NE003	Day	15.27 – 15.57	63	66	57	No	Processing and handling of WEEE in D-Hanger, moving forklifts and reverse alarms. Noise from extractor, dust cyclone constant.
		15.57 – 16.27	60	60	57		
		16.27 – 16.57	61	62	58		
		Arithmetic Average Day	**61**	**63**	**57**		
	Evening	22.11 – 22.41	**48**	**53**	**34**	No	No site noise audible. Off-site road traffic audible.
	Night	23.00 – 23.15	48	53	37	No	Noise from traffic on by-pass. No site noise audible
		23.16 – 23.31	47	52	34		
		Arithmetic Average Night	**48**	**53**	**36**		
NE004	Day	14.55 – 15.25	66	67	59	No	Processing and handling of WEEE in D-Hanger, moving forklifts and reverse alarms. Construction in CRT building with small generator operating. Off-site traffic noise audible. Dogs barking in nearby dog pound. Banging from lift at nearby site audible.
		15.30 – 16.00	68	69	60		
		16.00 – 16.30	66	68	57		
		Arithmetic Average Day	**67**	**68**	**59**		
	Evening	22.14 – 22.44	**49**	**49**	**38**	No	No site noise audible. Off-site road traffic audible.
	Night	23.36 – 23.51	43	46	35	No	Noise from traffic on by-pass. No site noise audible.
		23.52 – 00.07	43	47	35		
		Arithmetic Average Night	**43**	**47**	**35**		

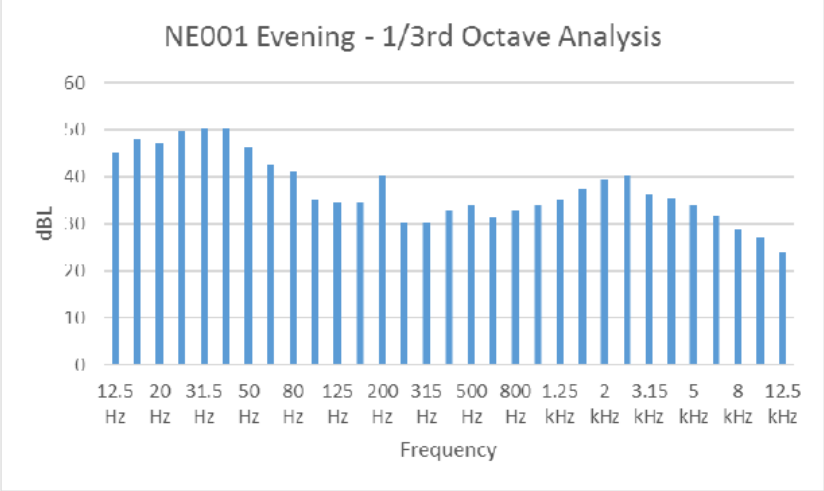
3.2 Tonal Noise Assessment of Boundary Noise Locations

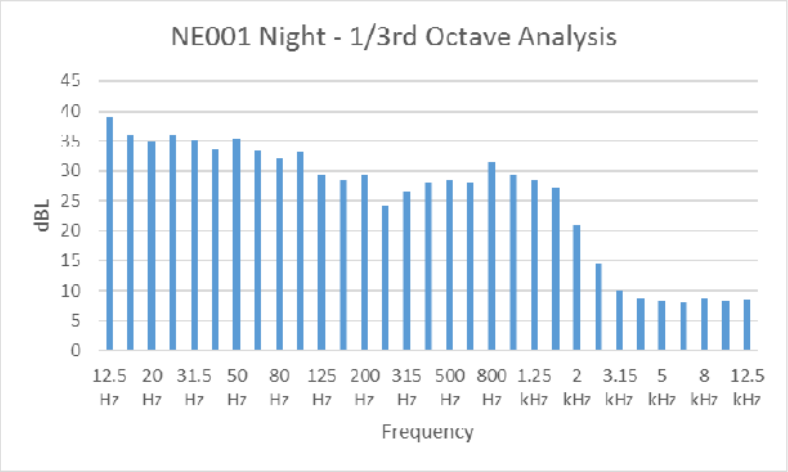
Hz	NE001				NE002		
	Day	Evening	Night		Day	Evening	Night
12.5 Hz	59.7	45.4	39		55.3	45.2	45.4
16 Hz	63.7	48.2	36		68.2	45.8	45.7
20 Hz	59.9	47.2	34.9		57.7	40.3	40.1
25 Hz	59.3	49.7	36.1		65.1	42.3	43.1
31.5 Hz	72.5	50.2	35.2		60	38.8	39.2
40 Hz	70.4	50.1	33.7		58.5	34.4	41.5
50 Hz	65.1	46.2	35.3		61.6	36.4	39.1
63 Hz	62	42.8	33.5		60.8	38.5	38.4
80 Hz	60.8	41.1	32.3		64.4	40	39.6
100 Hz	59.1	35.1	33.2		60.2	43.8	32.2
125 Hz	56.6	34.6	29.3		58	32.8	28.8
160 Hz	55.1	34.6	28.5		59	34.2	29.9
200 Hz	55.4	40.5	29.4		58.1	32.7	29.7
250 Hz	54.8	30.4	24.2		55	40.8	29.9
315 Hz	52.7	30.3	26.5		56.5	42.9	28.4
400 Hz	54.4	32.9	28		55.8	38.2	30.6
500 Hz	52.4	33.9	28.4		55.9	34.7	27.6
630 Hz	53.2	31.5	28.1		54.5	36.8	28.6
800 Hz	53.3	33	31.5		53.1	34	31.5
1 kHz	55.1	34	29.4		52.8	33	29.9
1.25 kHz	56.2	35.2	28.6		52.1	30.8	27.1
1.6 kHz	55	37.3	27.1		51.7	27.3	24.3
2 kHz	50.9	39.5	21		51	23.7	21.2
2.5 kHz	45.8	40.2	14.6		50.9	21.1	15.9
3.15 kHz	43	36.3	10		49.9	21.1	13.1
4 kHz	43.5	35.4	8.6		47.6	21.1	13.7
5 kHz	38.6	34.2	8.3		45	18.9	13.5
6.3 kHz	33.3	31.7	8.1		41.4	17	13
8 kHz	28.7	29.1	8.7		37.6	14.9	12.7
10 kHz	24.9	27.1	8.2		32.9	13.5	11.6
12.5 kHz	19.2	24	8.4		26.9	9.3	8.8

Hz	NE003				NE004		
	Day	**Evening**	**Night**		**Day**	**Evening**	**Night**
12.5 Hz	63.7	47.5	44.5		59.9	48	43
16 Hz	76.8	50.5	44.5		60.5	53.1	40.3
20 Hz	66.7	50	44.5		62.6	51.3	41.5
25 Hz	69.2	46.8	42.7		73.7	44.2	48
31.5 Hz	70.6	46	41.5		66.6	43.6	41.7
40 Hz	66.9	45.5	40.5		68	38.8	40.8
50 Hz	67.4	47	40.1		68.7	38.7	39.8
63 Hz	70	62.4	48		66.8	38.3	41.8
80 Hz	69.3	50.3	46.2		66.5	39.2	41.4
100 Hz	62.2	48	39.8		70.2	33.3	33.6
125 Hz	57.3	46.2	37.9		70.7	33.5	32.1
160 Hz	54.5	40.8	35.1		70.9	31.2	30.1
200 Hz	52.7	32.4	30.9		65.2	31.2	29.8
250 Hz	51.8	29.5	28.4		65.3	30.9	28.4
315 Hz	49.1	28.5	33.3		63.6	29.5	29.4
400 Hz	48.3	36.6	32.6		63	29.7	30.1
500 Hz	51	40.4	37.1		62.3	29.1	31.5
630 Hz	48.7	44.4	38.4		60.7	30.1	32.1
800 Hz	49.8	48.7	44.2		59.8	32.9	35.9
1 kHz	50.1	47.2	43.2		59.5	31.9	36.7
1.25 kHz	48.8	45.2	42.8		58.8	31.3	34.9
1.6 kHz	46.2	42.3	39.7		57.4	26.9	33
2 kHz	44.6	38.2	35.2		56.3	20.6	29.6
2.5 kHz	44.2	32.7	29.9		56.8	14.4	23.7
3.15 kHz	44.8	26.2	24.3		56.8	13.4	18.2
4 kHz	40.6	19.1	19.7		51.9	13.7	14.3
5 kHz	38	13.5	16.7		49.3	10.8	10.2
6.3 kHz	36.1	12.7	14.2		46.2	10.5	9.4
8 kHz	32.6	12.5	12		42.7	10.5	9.7
10 kHz	29	9.7	10.7		38.3	10.1	9.1
12.5 kHz	24.1	7.9	8.2		33.7	7.9	7.6

Tonal Noise Assessment NE001

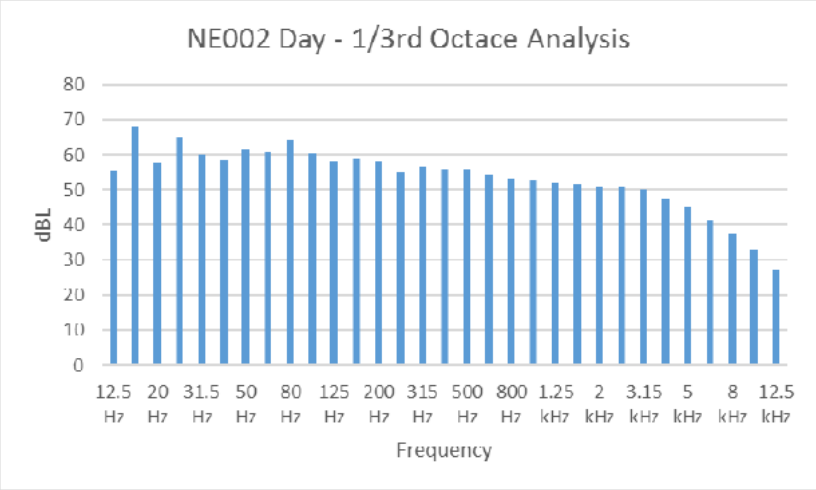


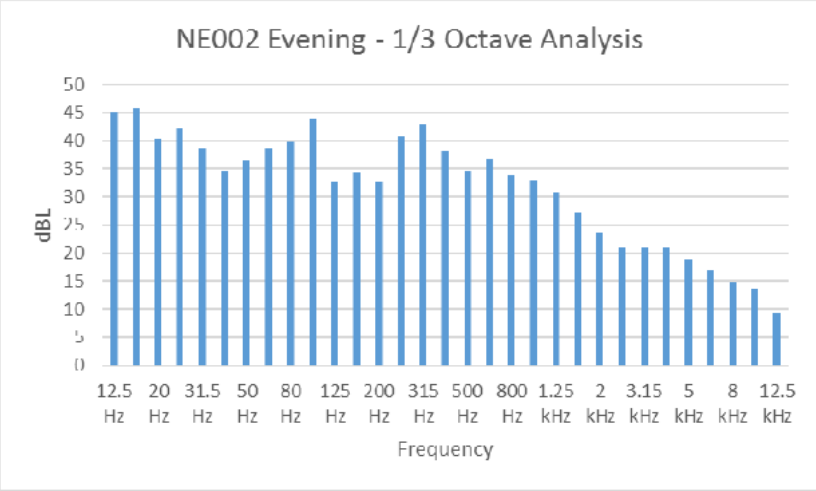


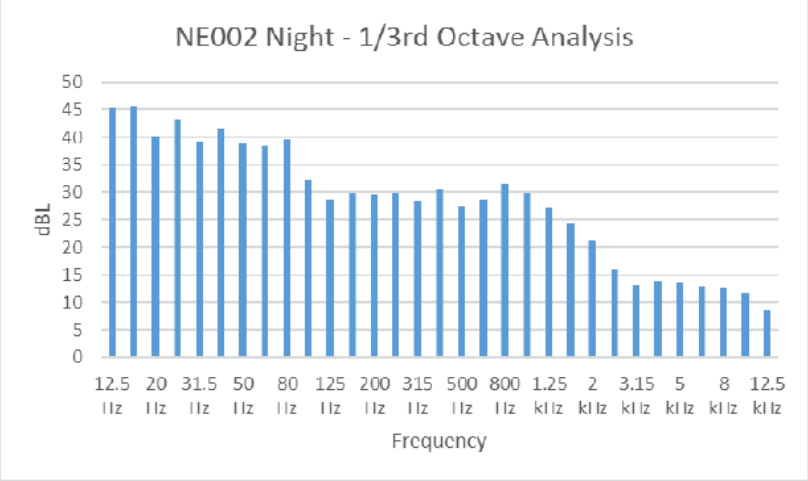


Location	**NE001**		
Period	Day	Evening	Night
Time	14.45	21:45	00.13
Suspected 1/3 octave band frequency of tone, Hz	None	None	None
Magnitude of tone dB Leq	-	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq		-	-
Level change from following 1/3 octave band, dB Leq	-	-	-
Are the level changes greater than or equal to; 15dB (low frequency), 8dB (middle frequency), 5dB (high frequency)	-	-	-
Conclusion	***No tone present***	***No tone present***	***No tone present***

Tonal Noise Assessment NE002

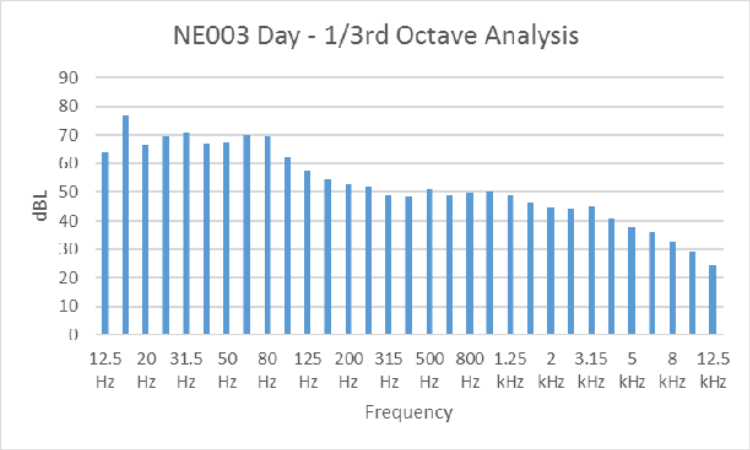


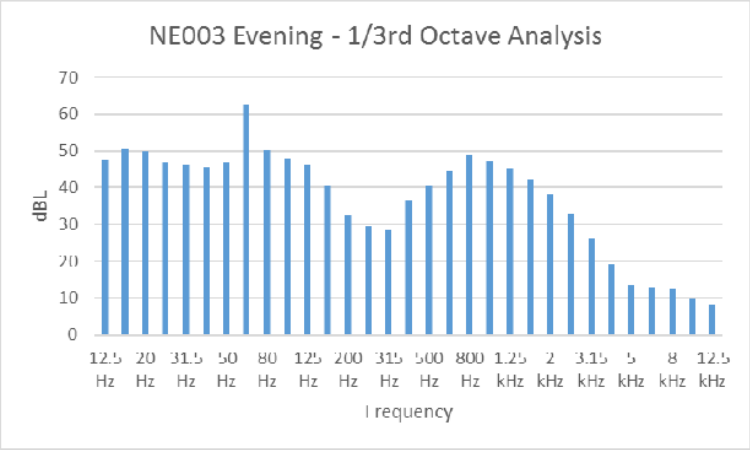


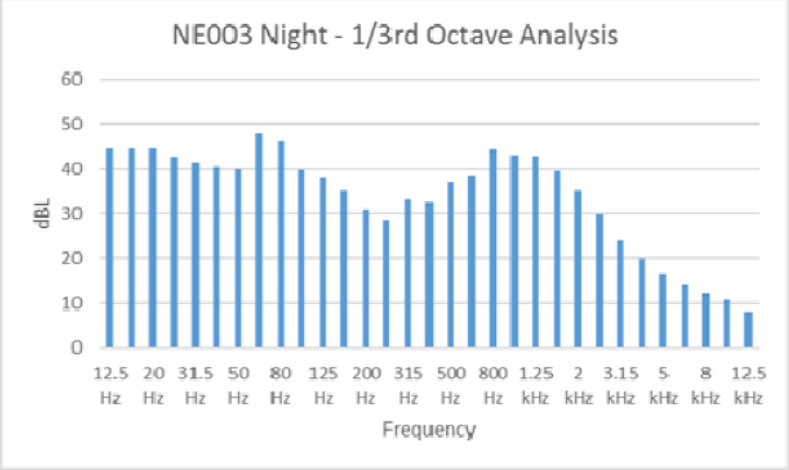


Location	**NE002**		
Period	Day	Evening	Night
Time	14.50	22.47	23.02
Suspected 1/3 octave band frequency of tone, Hz	None	None	None
Magnitude of tone dB Leq	-	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq	-	-	-
Level change from 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)	-	-	-
Conclusion	***No tone present***	***No tone present***	***No tone present***

Tonal Noise Assessment NE003

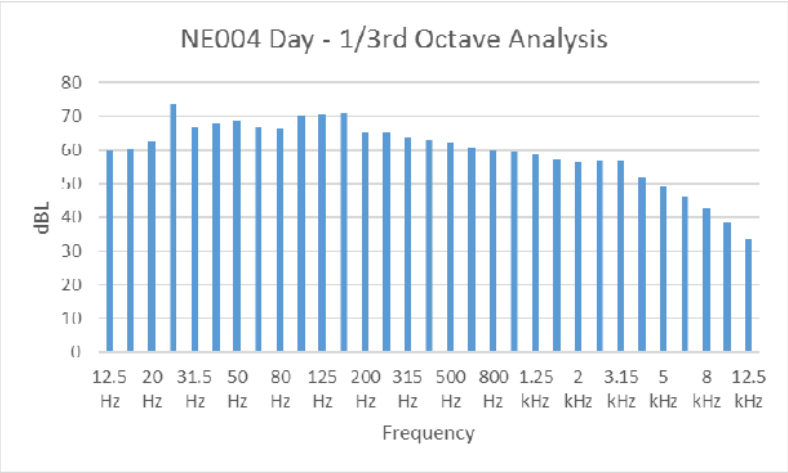


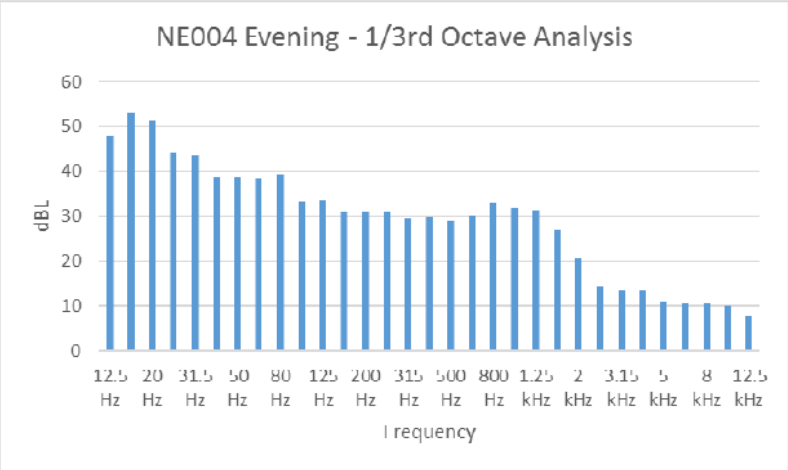


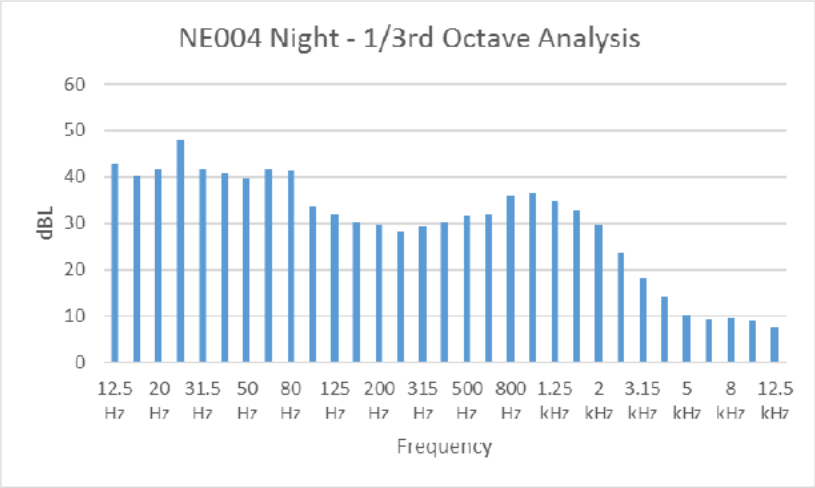


Location	**NE003**		
Period	Day	Evening	Night
Time	16.33	22.56	23.00
Suspected 1/3 octave band frequency of tone, Hz	None	None	None
Magnitude of tone dB Leq	-	-	-
Is the magnitude greater than the threshold of hearing?	-	-	-
Level change from preceding 1/3 octave band, dB Leq		-	-
Level change from following 1/3 octave band, dB Leq	-	-	-
Are the level changes greater than or equal to; 15dB (low frequency), 8dB (middle frequency), 5dB (high frequency)	-	-	-
Conclusion	***No tone present***	***No tone present***	***No tone present***

Tonal Noise Assessment NE004







Location	**NE004**		
Period	Day	Evening	Night
Time	16.31	22.44	00.18
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)	-	-	-
Conclusion	***No tone present***	***No tone present***	***No tone present***

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 12dBA between the average L_{A10} reading of 61dBA and the average L_{A90} reading of 49dBA 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 at Ravenhill couriers adjacent to this monitoring location.

This location had an average L_{Aeq} reading of 53dBA during the evening. The difference of 13dBA between the average L_{A10} reading of 56dBA and the average L_{A90} reading of 43dBA indicates the presence of a lot of intermittent noise at this location, caused by vehicle movement in E yard/ dumping of material at the bottom of E Yard 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 8dBA between the average L_{A10} reading of 43dBA and the average L_{A90} reading of 35dBA 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 66dBA during the day. The difference of 12dBA between the average L_{A10} reading of 67dBA and the average L_{A90} reading of 55dBA indicates the presence of a lot of intermittent noise at this location, caused by the movement of material by forklift 5metres from this monitoring location and from general WEEE handling and dismantling.

This location had an average L_{Aeq} reading of 56dBA during the evening. The difference of 17dBA between the average L_{A10} reading of 58dBA and the average L_{A90} reading of 41dBA indicates the presence of a lot of intermittent noise at this location, again caused by a forklift moving material and from WEEE handling inside D-Hanger.

This location had an average L_{Aeq} reading of 40dBA during the night. The difference of 7dBA between the average L_{A10} reading of 42dBA and the average L_{A90} reading of 35dBA 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.

NE003

NE003 located at the southern boundary behind the D-Hanger building had an average L_{Aeq} reading of 61dBA during the day. The difference of 6dBA between the average L_{A10} reading of 63dBA and the average L_{A90} reading of 57dBA 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 on the by-pass.

This location had an average L_{Aeq} reading of 48dBA during the evening. The difference of 19dBA between the average L_{A10} reading of 53dBA and the average L_{A90} reading of 34dBA indicates the presence of a lot of intermittent noise at this location, again caused by road traffic on the by-pass.

This location had an average L_{Aeq} reading of 48dBA during the night. The difference of 17dBA between the average L_{A10} reading of 53dBA and the average L_{A90} reading of 36dBA 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 67dBA during the day. The difference of 9dBA between the average L_{A10} reading of 68dBA and the average L_{A90} reading of 59dBA indicates the presence of a lot of intermittent noise at this location, caused by the processing and handling of WEEE in D-Hanger/ construction work in the CRT building and from road traffic noise from the by-pass and the main Ballinagar road.

This location had an average L_{Aeq} reading of 49dBA during the evening. The difference of 11dBA between the average L_{A10} reading of 49dBA and the average L_{A90} reading of 38dBA indicates the presence of a lot of intermittent noise at this location, caused by road traffic on the by-pass.

This location had an average L_{Aeq} reading of 43dBA during the night. The difference of 12dBA between the average L_{A10} reading of 47dBA and the average L_{A90} reading of 35dBA 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, with the exception of Boundary Noise Locations NE003 and NE004 during the evening time. All night-time noise readings at Boundary Noise Locations were below the licence requirements, with the exception of Boundary Noise Location NE003.

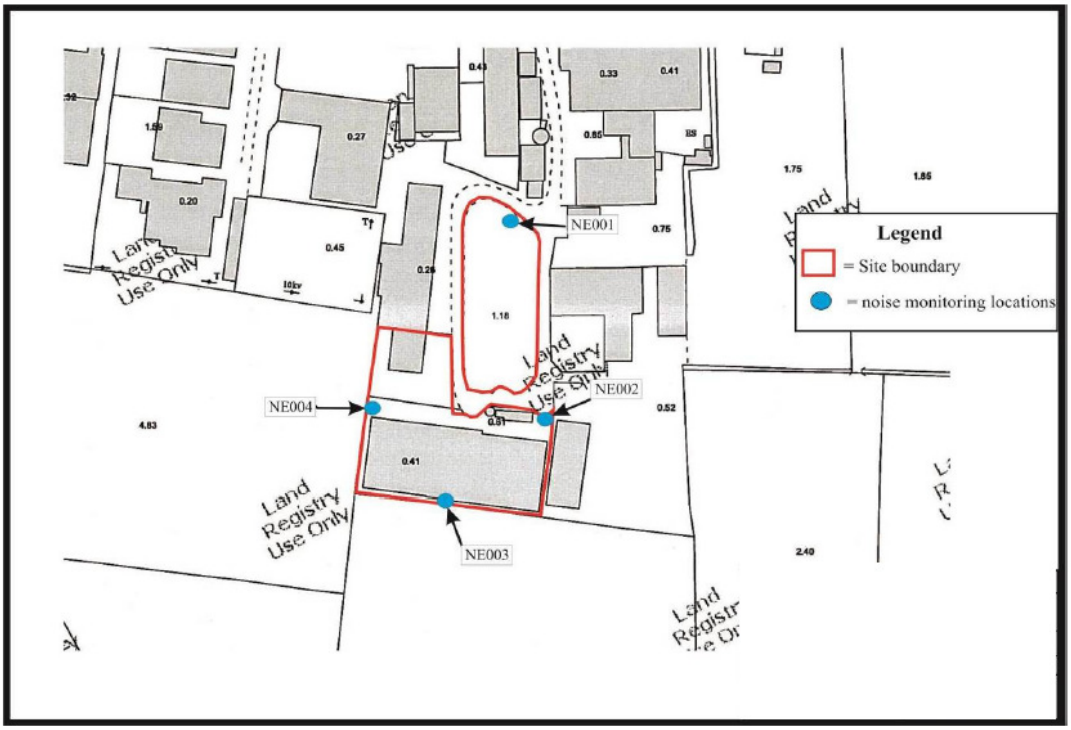
The site is located within the Cappincur Industrial Estate, Tullamore, which includes warehousing, commercial/industrial and waste management operations. The site is also located along the main Ballinagar road to the north of the site and the National N52 by-pass road of Tullamore, located to the west 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 no tonal or impulsive noise from the factory audible at the Boundary Noise Locations.

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



Certificate of Calibration for Rion NA-27 Noise Meter

CERTIFICATE OF CALIBRATION

Issued By BSRIA Instrument Solutions
Date of Issue 25 May 2016

Certificate Number
STD81873

Page 1 of 2 Pages

BSRIA
Instrument Solutions

Old Bracknell Lane West, Bracknell,
Berkshire, RG12 7AH, United Kingdom
T: +44 (0) 1344 459314 F: +44 (0) 1344 465556
E: info@bis.fm W: www.bis.fm

Approved Signatory

Customer : QED Engineering Ltd

Date Received : 19 May 2016

Instrument -

System ID :	101868
Description :	Sound Level Meter, Type 1
Manufacturer :	Rion
Model Number :	NA27
Serial Number :	00380685
Procedure Version :	NO149V1

Environmental Conditions

Temperature :	20°C +/- 4°C	Mains Voltage :	240V +/- 10V
Relative Humidity :	50% +/- 20%	Mains Frequency :	50Hz +/- 1Hz

Comments

Calibration tolerances quoted are those as stated in BS EN 61672-1:2003
Unless otherwise stated all readings are made at 1kHz.
Calibration performed acoustically.
Preamp Serial Number 73804.
Barometric Pressure= 1008.8 mbar. Ambient Temperature = 21.5 °C

Traceability Information

Instrument description	*Serial number*	*Certificate number*	*Cal. Date*	*Cal. Period*
B&K 4226 Calibrator (Danak 307)	1551580	CDK1500895	03/02/2015	104

Calibrated By : D. M. Tovey **Date of Calibration** : 25 May 2016

CERTIFICATE OF CALIBRATION

Certificate Number
STD81873

Page 2 of 2 Pages

Test Title	Tolerance	Applied Value	Reading	% Of Spec.
Acoustic Pre Calibration Check at 1kHz. 40 to 110dB Range. SLM Mode.				
As Found	1.1dB	104.0dB	104.2dB	18%
After Adjusted	1.1dB	104.0dB	104.0dB	0%
CALIBRATION RESULTS				
SLM Filter Mode, 1kHz, Fast Response.				
Range, 30 to 100dB	1.1dB	94.0dB	94.2dB	18%
Range, 40 to 110dB	1.1dB	94.0dB	94.0dB	0%
	1.1dB	104.0dB	104.0dB	0%
Range, 50 to 120dB	1.1dB	94.0dB	94.0dB	0%
	1.1dB	104.0dB	104.0dB	0%
	1.1dB	114.0dB	114.0dB	0%
Range, 60 to 130dB	1.1dB	114.0dB	113.9dB	9%
Range, 70 to 140dB	1.1dB	114.0dB	114.0dB	0%
A level of 94dB, at the frequency shown, was applied to the instrument and its dB(A) weighted response recorded.				
94dB @ 125Hz	1.5dB	77.9dB	77.9dB	0%
94dB @ 1kHz	1.1dB	94.0dB	94.0dB	0%
94dB @ 4kHz	1.6dB	95.0dB	95.3dB	19%
A level of 94dB, at the frequency shown, was applied to the instrument and its dB(C) weighted response recorded.				
94dB @ 125Hz	1.5dB	93.8dB	93.8dB	0%
94dB @ 1kHz	1.1dB	94.0dB	94.0dB	0%
94dB @ 4kHz	1.6dB	93.2dB	93.6dB	25%
Octave 1/1 Filter Mode, Fast Response, 40 to 110dB Range.				
94dB @ 63Hz	1.5dB	94.0dB	94.1dB	7%
94dB @ 125Hz	1.5dB	94.0dB	94.0dB	0%
94dB @ 250Hz	1.4dB	94.0dB	93.9dB	7%
94dB @ 500Hz	1.4dB	94.0dB	93.8dB	14%
94dB @ 1kHz	1.1dB	94.0dB	93.8dB	18%
94dB @ 2kHz	1.6dB	94.0dB	94.0dB	0%
94dB @ 4kHz	1.6dB	94.0dB	94.2dB	12%
94dB @ 8kHz	2.1dB	94.0dB	93.8dB	10%

Uncertainties

Sound Level	±0.5 dB

Certificate of Calibration for Castle Calibrator

CERTIFICATE OF CALIBRATION

Issued By BSRIA Instrument Solutions
Date of Issue 25 May 2016

Certificate Number
STD81875

Page 1 of 2 Pages

BSRIA
Instrument Solutions
Old Bracknell Lane West, Bracknell,
Berkshire, RG12 7AH, United Kingdom
T: +44 (0) 1344 459314 F: +44 (0) 1344 465556
E: info@bis.fm W: www.bis.fm

BSRIA Quality Approved

Approved Signatory

Customer : QED Engineering Ltd

Date Received : 19 May 2016

Instrument -

System ID :	101869
Description :	Acoustic Calibrator
Manufacturer :	Castle
Model Number :	GA607
Serial Number :	036341
Procedure Version :	NO202V1

Environmental Conditions

Temperature :	20°C +/- 4°C	Mains Voltage :	240V +/- 10V
Relative Humidity :	50% +/- 20%	Mains Frequency :	50Hz +/- 1Hz

Comments

Calibration performed acoustically by intercomparison with a reference acoustic calibrator of known uncertainty.

Barometric Pressure= 1008.5 mbar. Ambient Temperature =21.5 °C

Traceability Information

Instrument description	*Serial number*	*Certificate number*	*Cal. Date*	*Cal. Period*
B&K 4226 Calibrator (Danak 307)	1551580	CDK1500895	03/02/2015	104

Calibrated By : D. M. Tovey D. M. Tovey **Date of Calibration :** 25 May 2016

CERTIFICATE OF CALIBRATION

Certificate Number
STD81875

Page 2 of 2 Pages

Test Title	Tolerance	Nominal Level	Measured Level	% Of Spec.
PRE CALIBRATION CHECK				
Battery Level Check	---	---	Pass	
CALIBRATION RESULTS				
The acoustic calibrators output level was compared against a reference acoustic calibrator using a transfer sound level meter. The values recorded are shown on this certificate.				
Acoustic calibration at 1000Hz				
Acoustic Level	0.30dB	94.0dB	93.8dB	67%
Acoustic Level	0.30dB	104.0dB	103.9dB	33%

---------- **END OF DATA** ----------

Uncertainties

Sound Level	±0.5 dB

Certificate of Calibration of B&K Noise Meters

Brüel & Kjær

The Calibration Laboratory
Skodsborgvej 307, DK-2850 Nærum, Denmark

ilac-MRA DANAK CAL Reg.nr. 307

CERTIFICATE OF CALIBRATION

No: CDK140XY Page 1 of 10

CALIBRATION OF

Sound Level Meter:	Brüel & Kjær Type 2238	No: 2343753	Id: -
Microphone:	Brüel & Kjær Type 4188	No: 2555128	
Preamplifier:	Brüel & Kjær Type ZC-0027	No: ---	
Supplied Calibrator:	Brüel & Kjær Type 4231	No: ---	
Software version:	BZ7126 Version 1.2	Pattern Approval:	PTB1.63-4046158
Instruction manual:	BE1712-18		

CUSTOMER

Enfonic Ltd
Techpro House
IDA Business & Technology Park
Dublin 17
Ireland

CALIBRATION CONDITIONS

Preconditioning: 4 hours at 23°C ± 3°C
Environment conditions: *See actual values in **Environmental conditions** sections.*

SPECIFICATIONS

The Sound Level Meter Brüel & Kjær Type 2238 has been calibrated in accordance with the requirements as specified in IEC61672-1:2002 class 1. Procedures from IEC 61672-3:2006 were used to perform the periodic tests. The accreditation assures the traceability to the international units system SI.

PROCEDURE

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 4.9 - DB: 4.90) by using procedure 2250-4189.

RESULTS

Calibration Mode: **Calibration as received.**

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2015-01-22 Date of issue: 2015-01-22

M. Önder
Mikail Önder
Calibration Technician

Susanne Jørgensen
Susanne Jørgensen
Approved Signatory

APPENDIX 2

Waste Received in 2016

Point of Collection	Material Description	EWC Code	Material Weight (T)
Civic Amenity Site	Large Household Appliances (Fridges)	16 02 11*	954.347
Civic Amenity Site	IT Equipment (CPU's)	16 02 14	0.396
Civic Amenity Site	Batteries (Lead Acid)	16 06 01*	91.54
Civic Amenity Site	Batteries (Alkaline)	16 06 04	78.686
Civic Amenity Site	Batteries (Fence)	16 06 04	37.04
Civic Amenity Site	Fluorescent Tubes	20 01 21*	72.388
Civic Amenity Site	Batteries (Unsorted)	20 01 33*	0.53
Civic Amenity Site	Small Household Appliances	20 01 35*	3,550.20
Civic Amenity Site	CRT (TV's and Monitors)	20 01 35*	1,842.76
Civic Amenity Site	Large Household Appliances	20 01 36	1,877.96
Commercial	National Pen (Waste Merchandise)	15 01 02	65.851
Commercial	X-Ray Film with Silver	09 01 07	3.137
Commercial	Foundry Ceramics & Runnings	10 10 08	32.284
Commercial	Ferrous Steel Fines	12 01 01	244.121
Commercial	Welding Wastes (Solder)	12 01 01	2.139
Commercial	High Speed Steel (HSS Tools)	12 01 02	2.761
Commercial	Non-Ferrous Metal Filings and Turnings	12 01 03	244.616
Commercial	Precious Metal Scrap	12 01 04	0.007
Commercial	Metal Extractor Dusts	12 01 20*	3.461
Commercial	Spent Grinding Bodies	12 01 20*	0.098
Commercial	Spent Grinding Bodies (Non-Hazardous)	12 01 21	3.531
Commercial	Cardboard Packaging	15 01 01	1.615
Commercial	Timber Packaging	15 01 03	19.179
Commercial	Waste to Energy	15 01 06	47.37
Commercial	Solder Wipes	15 02 03	0.246
Commercial	Capacitors	16 02 09*	1.599
Commercial	Large Household Appliances (Fridges)	16 02 11*	66.993
Commercial	Cathode Ray Tube (CRT)	16 02 13*	77.657
Commercial	Flat Panel Display	16 02 13*	22.385
Commercial	IT Equipment (Mixed Hazardous)	16 02 13*	242.999
Commercial	IT Equipment (CPU's)	16 02 14	152.01
Commercial	IT Equipment (Non-Hazardous)	16 02 14	2,666.48
Commercial	Large Household Appliances	16 02 14	360.683
Commercial	Medical Devices	16 02 14	42.427
Commercial	Microwaves	16 02 14	192.795
Commercial	Mixed Metal Scrap	16 02 14	255.163
Commercial	IT Equipment (Non-Hazardous)	16 02 14	34.149
Commercial	Plastics	16 02 16	28.46

Commercial	WEEE Assemblies	16 02 16	822.685
Commercial	Plastic with steel springs	16 03 04	10.923
Commercial	Batteries (Lead Acid)	16 06 01*	449.547
Commercial	Batteries (Ni-Cd)	16 06 02*	33.734
Commercial	Batteries (Fence)	16 06 04	66.838
Commercial	Batteries (Non-Hazardous)	16 06 04	145.623
Commercial	Batteries (Lithium & Lithium-Ion)	16 06 05	7.083
Commercial	Stainless Steel Scrap	17 04 07	7.96
Commercial	Non-Ferrous Metal Scrap	19 12 03	78.817
Commercial	Glass	19 12 05	0.601
Commercial	Fluorescent Tubes	20 01 21*	27.29
Commercial	Large Household Appliances (Fridges)	20 01 23*	2,227.37
Commercial	Batteries (Unsorted)	20 01 33*	118.161
Commercial	CRT (TV's and Monitors)	20 01 35*	498.085
Commercial	Small Household Appliances	20 01 35*	1,281.43
Commercial	Large Household Appliances	20 01 36	6,896.24
Commercial	Aluminium Scrap	20 01 40	0.408
Commercial	Steel Scrap	20 01 40	214.006
Industrial	Foundry Ceramics & Runnings	10 10 08	55.278
Industrial	Nickel Iron Filter Cake	11 01 09*	9.704
Industrial	Filter Cake (Non-Hazardous)	11 01 10	0.477
Industrial	Ferrous Steel Fines	12 01 01	4.257
Industrial	High Speed Steel (HSS Tools)	12 01 01	0.46
Industrial	Welding Wastes (Solder)	12 01 01	0.322
Industrial	Non-Ferrous Metal Filings and Turnings	12 01 03	0.022
Industrial	Non-Ferrous Metal Filings and Turnings	12 01 03	104.851
Industrial	Non-Ferrous Metal Dusts and Particles	12 01 04	3.509
Industrial	Metal Extractor Dusts	12 01 20*	185.483
Industrial	Spent Grinding Bodies	12 01 20*	26.442
Industrial	Spent Grinding Bodies (Non-Hazardous)	12 01 21	1.974
Industrial	Timber Packaging	15 01 03	0.005
Industrial	Waste to Energy	15 01 06	0.429
Industrial	Solder Wipes	15 02 03	0.837
Industrial	Large Household Appliances (Fridges)	16 02 11*	17.377
Industrial	Cathode Ray Tube (CRT)	16 02 13*	1.171
Industrial	IT Equipment (Mixed Hazardous)	16 02 13*	24.402
Industrial	IT Equipment (CPU's)	16 02 14	0.682
Industrial	IT Equipment (Non-Hazardous)	16 02 14	33.559
Industrial	LHA	16 02 14	1.844
Industrial	Medical Devices	16 02 14	0.28
Industrial	Mixed Metal Scrap	16 02 14	1.09

Industrial	Smoke Alarms	16 02 14	2.321
Industrial	Plastics	16 02 16	1.144
Industrial	WEEE Assemblies	16 02 16	42.051
Industrial	Batteries (Lead Acid)	16 06 01*	3.621
Industrial	Batteries (Ni-Cd)	16 06 02*	0.578
Industrial	Batteries (Alkaline)	16 06 04	1.609
Industrial	Batteries (Lithium & Lithium-Ion)	16 06 05	0.163
Industrial	Non-Ferrous Metal Scrap	19 12 03	6.981
Industrial	Fluorescent Tubes	20 01 21*	1.854
Industrial	Large Household Appliances (Fridges)	20 01 23*	0.02
Industrial	Batteries (Unsorted)	20 01 33*	0.338
Industrial	Small Household Appliances	20 01 35*	1.683
Industrial	Steel Scrap	20 01 40	31.704
Transfer Station	Ferrous Steel Fines	12 01 01	0.853
Transfer Station	Non-Ferrous Metal Filings and Turnings	12 01 03	19.322
Transfer Station	Timber Packaging	15 01 03	0.311
Transfer Station	Waste to Energy	15 01 06	0.596
Transfer Station	Large Household Appliances (Fridges)	16 02 11*	33.188
Transfer Station	Cathode Ray Tube (CRT)	16 02 13*	57.972
Transfer Station	Flat Panel Display	16 02 13*	34.229
Transfer Station	IT Equipment (Mixed Hazardous)	16 02 13*	1.375
Transfer Station	Smoke Alarms	16 02 13*	0.761
Transfer Station	IT Equipment (CPU's)	16 02 14	7.963
Transfer Station	IT Equipment (Non-Hazardous)	16 02 14	581.833
Transfer Station	Large Household Appliances (Fridges)	16 02 14	16.185
Transfer Station	WEEE Assemblies	16 02 16	138.205
Transfer Station	Batteries (Lead Acid)	16 06 01*	27.955
Transfer Station	Batteries (Ni-Cd)	16 06 02*	18.008
Transfer Station	Batteries (Alkaline)	16 06 04	10.968
Transfer Station	Batteries (Fence)	16 06 04	2.264
Transfer Station	Batteries (Lithium & Lithium-Ion)	16 06 05	0.008
Transfer Station	Stainless Steel Scrap	19 02 03	1.335
Transfer Station	Steel Scrap	19 12 02	0.351
Transfer Station	Non-Ferrous Metal Scrap	19 12 03	2.191
Transfer Station	Fluorescent Tubes	20 01 21*	7.468
Transfer Station	Large Household Appliances (Fridges)	20 01 23*	166.565
Transfer Station	Batteries (Unsorted)	20 01 33*	0.838
Transfer Station	Small Household Appliances	20 01 35*	2,465.70
Transfer Station	CRT (TV's and Monitors)	20 01 35*	442.195
Transfer Station	Large Household Appliances	20 01 36	141.228
Waste Industry	Ferrous Steel Fines	12 01 01	3.729

Waste Industry	Non-Ferrous Metal Filings and Turnings	12 01 03	0.769
Waste Industry	Large Household Appliances (Fridges)	16 02 11*	4.346
Waste Industry	Cathode Ray Tube (CRT)	16 02 13*	7.684
Waste Industry	Flat Panel Display	16 02 13*	6.972
Waste Industry	IT Equipment (Mixed Hazardous)	16 02 13*	15.321
Waste Industry	IT Equipment (Non-Hazardous)	16 02 14	263.214
Waste Industry	Large Household Appliances (Fridges)	16 02 14	1.412
Waste Industry	WEEE Assemblies	16 02 16	15.85
Waste Industry	Plastic with steel springs	16 03 04	0.08
Waste Industry	Batteries (Lead Acid)	16 06 01*	1.123
Waste Industry	(Batteries (Alkaline)	16 06 04	0.334
Waste Industry	Batteries (Lithium & Lithium-Ion)	16 06 05	0.278
Waste Industry	Batteries (Unsorted)	20 01 33*	0.956
Grand Total			**31,277.31**

Waste Despatched in 2016

Material Description	EWC Code	Material Weight (T)
Foundry Ceramics	10 10 08	24.871
Nickel Iron Filter Cake	11 01 09*	9.988
Precious Metal Scrap	11 01 09*	3.626
Solder Tubes & Wipes	11 01 09*	7.041
Ferrous - Light Iron & Steel Fines	12 01 01	1,668.80
Non-Ferrous Metals Filings and Turnings	12 01 03	20.129
Metals Extractor Dust	12 01 20*	86.498
Spent Grinding Bodies	12 01 20*	152.571
Waste Oil	13 02 05*	7.68
Waste Water (Interceptor)	13 05 08*	10.16
Cardboard / Packaging	15 01 01	43.76
Timber	15 01 03	44.202
CRT's & FPD's - Mixed	16 02 13*	355.577
IT Equipment (CPU's)	16 02 14	831.947
Glass-Mixed	16 02 15*	1,523.37
Non-Ferrous Metal WEEE Assemblies	16 02 16	3,297.70
Batteries (Lead Acid)	16 06 01*	565.091
Batteries Ni Cd	16 06 02*	76.883
Batteries (Non-Hazardous)	16 06 04	327.79
Batteries (Fence)	16 06 04	108.01
Batteries (Lithium & Lithium Ion)	16 06 05	57.167
Non-Ferrous Metals Scrap	19 12 03	983.485
Plastic	19 12 04	2,259.17
Waste to Energy MT Residue	19 12 12	1,016.26
Fluorescent Tubes & Bulbs	20 01 21*	105.589
Fridge Freezers	20 01 23*	5,270.35
Large Household Appliances	20 01 36	12,751.55
Grand Total		**31,609.26**

Waste in Stock in 2016

Material Description	EWC Code	Material Weight (T)
Sludges from on-site effluent treatment containing dangerous solutions	06 05 02*	12.77
Ferrous metal filings and turnings	12 01 01	26.88
Non-ferrous metal filings and turnings	12 01 03	66.61
Non-ferrous metal dust and particles	12 01 04	26.95
Welding wastes	12 01 01	1.93
Spent grinding bodies and grinding materials containing dangerous substances	12 01 20*	10.11
Paper and cardboard packaging	15 01 01	1.00
Wooden packaging	15 01 03	2.00
Mixed packaging	15 01 06	10.00
Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	15 02 03	4.00
Discarded equipment containing chlorofluorocarbons, HCFC, HFC	16 02 11*	7.50
Discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 12	16 02 13*	21.89
Discarded equipment other than those mentioned in 16 02 09 to 16 02 13	16 02 14	20.00
Hazardous components removed from discarded equipment	16 02 15*	13.09
Components removed from discarded equipment other than those mentioned in 16 02 15	16 02 16	134.12
Lead batteries	16 06 01*	48.14
Ni-Cd batteries	16 06 02*	3.37
Mercury-containing batteries	16 06 03*	3.64
Alkaline batteries (except 16 06 03)	16 06 04	2.69
Other batteries and accumulators	16 06 05	3.00
Spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or plantinum (except 16 08 07)	16 08 01	0.04
Iron and steel waste	19 10 01	25.78
Non-ferrous waste	19 10 02	16.56
Non-ferrous metal	19 12 03	19.30
Plastic and rubber	19 12 04	48.00
Minerals (for example sand, stones)	19 12 09	1.75
Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	19 12 12	24.94
Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these	20 01 33*	35.69

batteries		
Discarded electrical and electronic equipment other than those mentioned on 20 01 21 and 20 01 23 containing hazardous components (21)	20 01 35*	144.68
Discarded electrical and electronic equipment other than those mentioned on 20 01 21, 20 01 23 and 20 01 35	20 01 36	101.00
Grand Total		**837.40**

APPENDIX 3

PRTR Report for 2016

Environmental Protection Agency

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016

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
AER Returns Contact Name	Anthony Meehan
AER Returns Contact Email Address	anthony@qedeng.ie
AER Returns Contact Position	Environmental Consultant
AER Returns Contact Telephone Number	04772060
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	80
User Feedback/Comments	Differences in releases to water are due to interceptor upgrades/ desludging. Further info given in AER. Metal emissions to air have not been reported in the 2016 PRTR or any previous PRTR due to the insignificant levels detected that are normally non detected or near the Limit of Detection of the laboratory. Waste dispatched from the site increased due to an increase of waste accepted to the site in 2016. 'treatment & transfers of waste' tab to remain confidential.
Web Address	

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) ?	No

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

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
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

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
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 AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used		A2-5			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
244	Total Particulates	M	ALT	ISEN 13284:2004	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 Used		Facility Total Capacity m3 per hour	
			Method Code	Designation or Description		
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

Data 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							QUANTITY		
			Method Used		F				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
13	Total phosphorus	C	ALT	ALPHA Standard Methods	1.667	0.0	1.667	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					QUANTITY			
			Method Used					
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								QUANTITY		
			Method Used		DX	E	F			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
240	Suspended Solids	C	ALT	APHA/AWWA Standard Methods	4.517	8.9035	0.0	13.4205	0.0	0.0
324	Mineral oils	C	ALT	Determination of TPH by Infra Red Spectroscopy	0.7086	1.3164	0.0	2.025	0.0	0.0
303	BOD	C	ALT	APHA 5210B	0.0	0.0	0.83	0.83	0.0	0.0
238	**Ammonia (as N)**	C	ALT	Determination of Ammonium in Water Samples using the Kone Analyser	0.0	0.0	0.6622	0.6622	0.0	0.0

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

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 sbsorbents	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 03	No	20.129	non-ferrous metal filings and turnings	R4	M	Weighed	Abroad	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland		
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		
To Other Countries	12 01 20	Yes	86.498	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	152.571	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	0.0	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	10.16	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	43.76	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		
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		
Within the Country	15 01 03	No	44.202	wooden packaging	R3	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland		
Within the Country	15 01 06	No	0.0	mixed packaging	R5	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 11	Yes	0.0	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	0.0	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	0.0	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	0.0	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 13	Yes	355.577	discarded equipment containing hazardous components (16) other than those 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	0.0	discarded equipment containing hazardous components (16) other than those 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
Within the Country	16 02 14	No	831.947	discarded equipment other than those 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	0.0	discarded equipment other than those 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	0.0	discarded equipment other than those 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	0.0	discarded equipment other than those 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	0.0	discarded equipment other than those 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	1523.37	hazardous components removed from discarded equipment	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	3297.7	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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	0.0	components removed from discarded equipment other than those mentioned in 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 06 01	Yes	565.091	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	76.883	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	327.79	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 04	No	108.01	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	57.167	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	16 06 05	No	0.0	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	0.0	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		
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 02	No	0.0	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	983.485	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 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
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
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
Within the Country	19 12 04	No	2259.17	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
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
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
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)	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	1016.26	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 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	19 12 12	No	0.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 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	19 12 12	No	0.0	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 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	105.589	fluorescent tubes and other mercury-containing waste	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	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing 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	20 01 35	Yes	0.0	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing hazardous components	R12	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	20 01 23	Yes	5270.35	discarded equipment containing chlorofluorocarbons	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	20 01 36	No	12751.55	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland		
Within the Country	10 10 08	No	24.871	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland		
To Other Countries	11 01 09	Yes	9.988	sludges and filter cakes 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	11 01 09	Yes	3.626	sludges and filter cakes 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	11 01 09	Yes	7.041	sludges and filter cakes 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	12 01 01	No	1668.8	ferrous metal filings and turnings	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland		
Within the Country	**13 02 05**	**Yes**	7.68	mineral-based non-chlorinated engine, gear and lubricating oils	R9	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd ,W0113-03	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland	Confidential Information,,,,,,,,,,Ireland	,,,,,,,,Ireland

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