Mr Brian Meaney
Inspector
Environmental Protection Agency (EPA)
PO Box 3000
Johnstown Castle Estate
Co Wexford

9th March 2012

KMK Metals Recycling Ltd (KMK) (Reg No. W0113-04)

Response to your letter dated 12th January 2012 re: Notice in accordance with Article 14(2)(b)(ii) of the Waste Management (Licensing) Regulations.

Dear Mr Meaney,

Further to your letter dated 12th January 2012 concerning Article 14(2)(b)(ii) of the regulations, my client now wishes to submit the following information;

ARTICLE 12 COMPLIANCE REQUIREMENTS

Emissions and impact of emissions

EPA requests;

1. **Elevated iron and nickel and concentrations in annual groundwater monitoring are attributed to naturally occurring soils and underlying rock deposits. Please provide evidence of this.**

In terms of groundwater monitoring results, there are two separate boreholes sampled i.e. GW1 and GW2. All results are compared to the EC Environmental Objectives (Groundwater) Regulations, S.I. 9/2010.

Borehole at GW1 does not have elevated nickel levels. There have been elevated iron levels from 2004 to 2007, but from 2007 to 2011 the iron levels are low and insignificant.

Borehole GW2 does not have elevated iron levels. There have been elevated nickel levels between the range 24 to 135 µg/l from 2006 to 2011. However in 2009 the nickel levels were 13 µg/l and therefore below the EC Environmental Objectives (Groundwater) Regulations, S.I. 9/2010 threshold values.

At present there is no actual evidence to substantiate the comment that elevated iron and nickel levels are due to naturally occurring sources in the underlying rock and soils. Rather, this comment is due to the fact that nickel and iron are both naturally present in much soils and rocks in general, and this broad fact is generally well documented. For example 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.

2. Provide a summary of <u>all</u> groundwater monitoring undertaken at the facility and analytical results obtained to date. Provide an interpretation of monitoring results and comment on trends.

The summary of all groundwater monitoring undertaken at the KMK Metals facility to date is summarised in the tables below for both GW1 and GW2 boreholes.

Groundwater Monitoring GW1 Results 2008 – 2012

Parameters	GW1 14/08/03	GW1 15/12/04	GW1 28/09/05	GW1* 11/10/06	GW1 13/12/06	GW1 21/12/07	GW1 10/03/08	GW1 26/05/09	GW1 01/09/10	GW1 07/12/11	GW1 06/01/12 (test for VOCs and nitrogen only)	GW1 09/02/12 (repeat test for VOCs only)	EC Drinking Water Guideline SI. 278/2007	Groundwater Threshold Values EC Environmental Objectives (Groundwater) Regulations, SI 9/2010
Conductivity @ 20C (µS/cm)	531	501	496	568*	8	588	546	502	487	502	-	Not required	2500	800 - 1875
pH (pH units)	7.8	7.8	7.6	7.36*	8.12	7.5	7.59	7.3	8.26	8.06	-	Not required	NRG	6.5-9.5
E. Coli (cfu/100mls)	Not required	0	Not required	Not required	Not required	0	<1	0	0	0	-	Not required	0	0
List I/II Screen i.e. VOCs (µg/l)	Not required	Not required	Not required	Not required	Not required	None Detected	Not required	None Detected	None Detected	Not tested**	Detected note2	<1	NRG	NRG note 1
Total Nitrogen (as N) (mg/l)	Not required	Not tested**	<1	2*	2	1.12	4	<0.1	<1	Not tested**	<1	Not required	50	NRG
Chloride (mg/l)	Not required	12	13	14*	13	10.93	15	12.32	12.5	14.3	-	Not required	250	24 – 187.5
Nickel (µg/l)	16.7	<100	<100	90*	3	1	2	<0.5	1.25	1.77	-	Not required	20	15
Lead (µg/l)	<0.6	<200	-	86*	<1	3	1	<0.5	0.028	<0.02	-	Not required	25	18.75
Iron (µg/l)	19	390	340	485*	85	1,180	0.244	<10	19	<19	-	Not required	200	NRG
Chromium (µg/l)	<2	<50	<50	101*	8	1	<1	<0.5	4.66	11.8	-	Not required	50	37.5
Arsenic (µg/l)	2.3	<1	<1	91*	<1	1	<1	<0.5	0.197	0.313	-	Not required	10	7.5
Aluminium (µg/l)	<6.6	<10	210	732*	<2	173	170	<20	<2.9	<2.9	-	Not required	200	150
Mercury (µg/l)	<0.4	<0.1	<0.1	<0.05*	<0.05	<0.20	Not required	<0.05	<0.01	<0.01	-	Not required	1	0.75

NRG: No reference given

NRG note1: No reference given except for following; 1,2 – Dichloroethane – 2.25(µg/l), Vinyl chloride – 0.375 (µg/l), Benzene – 0.75 (µg/l), Total for Trichloroethene & Tetrachloroethene – 7.5 (µg/l)

Not tested**: Not scheduled for testing in error.

Detected Note 2: Detectible levels for following: Chloroform 3.56(µg/l), Carbontetrachloride 1.38 (µg/l), Trichloroethene 6.63 (µg/l), Tetrachloroethene 1.27 (µg/l), Total Trichloroethene & Tetrachloroethene 7.9 (µg/l)

* Shaded area denotes contested values not approved by KMK Metals at that time and interpreted as an error on laboratory analysis or errors in sampling methods leading to contamination of the samples.

Groundwater Monitoring GW2 Results 2008 – 2012

Parameters	GW2 This well was not within the licence boundary at the time.	GW2 15/12/04	GW2 28/09/05	GW2* 11/10/06	GW2 13/12/06	GW2 21/12/07	GW2 10/03/08	GW2 26/05/09	GW2 01/09/10	GW2 07/12/11	GW2 06/01/12 (test for VOCs and nitrogen only)	GW2 09/02/12 (repeat test for VOCs only)	EC Drinking Water Guideline SI. 278/2007	Groundwater Threshold Values EC Environmental Objectives (Groundwater) Regulations, SI 9/2010
Conductivity @ 20C (µS/cm)	-	N/A	<50	559*	558	Could not take sample	544	503	481	502	-	Not required	2500	800 - 1875
pH (pH units)	-	N/A	7.7	7.92*	7.91	As above	7.52	7.2	8.28	8.22	-	Not required	NRG	6.5-9.5
E. Coli (cfu/100mls)	-	Not required	Not required	Not required	Not required	As above	<1	4	0	0	-	Not required	0	0
List I/II Screen i.e. VOCs (µg/l)	-	Not required	Not required	Not required	Not required	As above	Not required	None Detected	None Detected	Not tested**	Detected note2	<1	NRG	NRG note 1
Total Nitrogen (as N) (mg/l)	-	N/A	3.8	1*	2	As above	10	<0.1	<1	Not tested**	<1	Not required	50	NRG
Chloride (mg/l)	-	N/A	13	14*	13	As above	15	12.25	12.6	14.5	-	Not required	250	24 – 187.5
Nickel (µg/l)	-	N/A	<100	129*	24	As above	135	13	20.9	76.8	-	Not required	20	15
Lead (µg/l)	-	N/A	-	79*	<1	As above	<1	<0.5	0.03	<0.02	-	Not required	25	18.75
Iron (µg/l)	-	N/A	<50	434*	76	As above	0.237	118	19	<19	-	Not required	200	NRG
Chromium (µg/l)	-	N/A	<50	97*	8	As above	<1	<0.5	4.43	11.5	-	Not required	50	37.5
Arsenic (µg/l)	-	N/A	1.4	92*	3	As above	3	2	5.88	2.31	-	Not required	10	7.5
Aluminium (µg/l)	-	N/A	110	103*	<2	As above	186	37	<2.9	<2.9	-	Not required	200	150
Mercury (µg/l)	-	N/A	<0.1	<0.05*	<0.05	As above	Not required	<0.05	<0.01	<0.01	-	Not required	1	0.75

NRG: No reference given

NRG note1: No reference given except for following; 1,2 – Dichloroethane – 2.25(µg/l), Vinyl chloride – 0.375 (µg/l), Benzene – 0.75 (µg/l), Total for Trichloroethene & Tetrachloroethene – 7.5 (µg/l)

Not tested**: Not scheduled for testing in error.

Detected Note 2: Detectible levels for following: Chloroform 5.12(µg/l), Carbontetrachloride 1.67 (µg/l), Trichloroethene 7.59 (µg/l), Tetrachloroethene 1.31 (µg/l), Total Trichloroethene & Tetrachloroethene 8.9 (µg/l)

* Shaded area denotes contested values not approved by KMK Metals at that time and interpreted as an error on laboratory analysis or errors in sampling methods leading to contamination of the samples.

The summary of all groundwater monitoring undertaken at the KMK Metals facility to date is summarised in the attached tables for both GW1 and GW2 boreholes. GW1 has been monitored since 2003. GW2 has been monitored since 2004, when it became within KMK's site boundary and therefore subject to Waste Licence conditions.

As can be seen from the tables, the majority of groundwater results are broadly within both the EC Drinking Water Guidelines S.I. 278/2007 and the EC Environmental Objectives (Groundwater) Regulations, S.I. 9/2010.

One monitoring event (October 2006) produced anomalous results for GW1 and GW2, attributed to contamination during sampling and/or an error at the laboratory. This monitoring event was repeated in December 2006, producing much improved results i.e. consistent with those on file from previous years. For the purposes of this discussion, 2006 results relate to the December monitoring event.

All results since 2009, with the exception of Nickel are in compliance with the drinking Water and Groundwater Guidelines and Regulations.

Exceedences have been seen for the following parameters:

E-Coli (bacterial coliforms): Elevated e-coli was reported at GW2 in 2009 (4cfu/100mls) versus the limit of 0cfu/100mls:

- Historically and presently there is no foul sewer treatment scheme within the Industrial Estate, which has resulted in the construction of individual septic tank and percolation systems for each of the businesses operating within the industrial estate including KMK Metals. The KMK Metals treatment system percolation area is located sufficiently away from the wells. Therefore the source of possible residual levels of bacteria detected may well have originated off-site during that year or maybe counted in error from the laboratory, although this was not contested at that time.

Nickel: Elevated levels of Nickel were reported at GW2 in 2006 (24ug/l); 2008 (135ug/l); 2010 (20.9ug/l) and 2011 (76.8ug/l) – versus the limits of 20ug/l for Drinking Water and 15ug/l for Groundwater:

- nickel and iron are both naturally present in much soils and rocks in general, and this broad fact is generally well documented. For example 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.

Iron: Whilst there are no regulatory guidelines on Iron content in Groundwater, the guideline limit for Drinking Water is 200ug/l. Iron levels reported for GW1 exceed the Drinking Water guidelines as follows: 390ug/l in 2004, 340ug/l in 2005, 1180ug/l in 2007. Since 2007 there have been no exceedences.

- Elevated iron levels are attributed to a possible natural presence in groundwater, resulting from the soils and rocks in the immediate area:
    - "muddy limestone…sometimes results in higher levels of iron in groundwaters in…Offaly, for example in Ferbane and Gallen (Cronin et al,

1999)" Source: Killeigh and Meelaghans Group Water Schemes Report, GSI (2001).

- The 'Soils of Co. Offaly' National Soil Survey of Ireland by Teagasc 2003 also refers frequently to natural Iron in soils and leaching of Iron through the soil layers.

Aluminium: The limits for Aluminium are 200ug/l according to Drinking Water Guidelines and 150ug/l according to the Groundwater Regulations; there are reported to have been some slight exceedences prior to 2008, as follows:

- GW1 was reported to have 210ug/l in 2005, 173 ug/l in 2007, and 170 in 2008; since 2008 there were no exceedences (<20ug/l in 2009; <2.9ug/l in 2010 and 2011).
- GW2 has had one reported exceedence: 186ug/l in 2008; since 2008 there were no exceedences (37ug/l in 2009, and <2.9 in 2010 and 2011). There was no recognisable source for aluminium in groundwater.

General comment on trends;

In relation to the groundwater tests at GW1 and referring to the tables GW1, the general trends show elevated iron from 2004 to 2007 and elevated aluminium levels from 2005 to 2008. The parameter results from 2009 to 2011 shows no elevated levels with the exception of slight detections for some VOCs (volatile organic compounds). These detected levels were suspected as being an error and a repeat sampling event was carried out in February 2012. These subsequent results show that VOCs are not present in the groundwater at GW1.

In relation to the groundwater tests at GW2 and referring to the tables GW2 attached, the trend has been for elevated nickel levels from 2006 to 2011 with the exception of no elevated nickel for 2009. Similarly to above, there were slight detections for some VOCs (volatile organic compounds) and hence a repeat sampling event was carried out in February 2012. These subsequent results show that VOCs are not present in the groundwater at GW2.

3. In relation to the proposed point source dust emissions point NE3/A2-8, complete the appropriate tables associated with attachment E1 of the application.

I now attach the necessary tables E.1(ii) and E.1(iii) for inclusion with the waste licence application.

TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 Page for each emission point)

Emission Point Ref. Nº:	A2-8
Source of Emission:	Outside air extraction fan associated with the bag house dust extraction treatment system.

Location :	South facing side of newly constructed WEEE building
Grid Ref. (12 digit, 6E,6N):	E635870 N724963
Vent Details Diameter: Height above Ground(m):	 0.80 metres 10.7m
Date of commencement:	Mid December 2011

Characteristics of Emission :

(i) Volume to be emitted:			
Average/day	320,000m^3/d	Maximum/day	320,000m^3/d
Maximum rate/hour	40,000m^3/h	Min efflux velocity	>15m.sec^{-1}
(ii) Other factors			
Temperature	30°C(max)	6°C(min)	13 to 18°C(avg)
For Combustion Sources: **No combustion occurring at this facility**. ~~Volume terms expressed as : ☐ wet. ☐ dry. _____ $\%O_2$~~			

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	60min/hr 16hrs/day[Note1] 303day/yr

Note 1 – in line with the proposed hours of operation of the waste licence which are as follows: 06:00 to 22:00 Monday to Friday and 06:00 to 13:00 Saturdays.

TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE - Chemical characteristics of the emission (1 table per emission point)

Emission Point Reference Number: A2-8

Parameter	Prior to treatment[1]				Brief description of treatment	As discharged[1]					
	mg/Nm^3		kg/h			mg/Nm^3		kg/h.		kg/year	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
Dusts (dry air source)	-	-	-	-	Bag house treatment unit and emissions stack	20	50	0.79	2	3,830	9,696

1. Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^{o}C,101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless clearly stated otherwise.

The above values are based on a flow rate of 40,000 Nm^3/hr.

In support of the tables completed above, please note that environmental noise and air emissions monitoring was conducted at KMK. The details are below:

3.1) A noise assessment of the emissions stack point at D-WEEE Plant (building), KMK Metals Recycling Ltd, was performed by ENVIROCO Management Ltd, November 2011. This report is included in Appendix 1 to this submission.

ENVIROCO Management Ltd conducted a noise assessment in the green field to the south of the newly constructed D-WEEE Plant (building) at the KMK facility, Tullamore. The land to the south of the KMK facility is currently green-field. There are no dwellings or places of gathering located between the facility southern boundary and the R420 Tullamore to Geashill/Portarlington Road.

Ambient noise recorded within the field, when the KMK plant was not operational, show a L_{Aeq} value of 54 dB.

At distances greater than 50 meters, the level of noise arising from the KMK D-WEEE Plant (building) is significantly low that it is unlikely to be a nuisance (L_{Aeq} of 57 dB).

Tonal analysis of the stack emission point (A2-8), show the presence of a tone at 31.5Hz at 20 and 40 meters distance from the stack emission. Assessment of the data concerning recorded spectral data indicate that at further distances, this tone is absorbed into the normal ambient and background acoustic environment. This correlates with the broadband noise conclusion of no likely impact at distances of 50 meters from the facility.

Levels predicted, prior to the installation of the stack emission were exceeded during the monitoring event.

The reasons for the higher 'real world' levels over the prediction included –

- A higher ambient noise level than assumed in the prediction
- Roller doors to the D-WEEE Plant (building) been open during the survey period
- Activity noise from within the D-WEEE Plant (building) been audible

From the monitoring event and an assessment of the local area to the south of the facility it is not shown that the new emission point from the D-WEEE Plant (building) will be an acoustical nuisance. There are no dwellings in proximity; there are no roads to enable dwellings to be likely built within proximity.

3.2) An assessment of the treated stack emissions point at D-WEEE plant (building) was conducted by Odour Monitoring Ireland Ltd, in 2nd December 2011. This report is included in Appendix 1 to this submission.

Monitoring was performed for the following parameters;

- Airflow rate
- Total particulates
- Moisture content
- Specified metals (particulate bound and gaseous based metals)

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

As previously stated in the non technical summary, in relation to dusts generated inside the D-WEEE plant, these are exhausted to a duct/ventilation system and directed to the proposed dust collection system (bag house type) for treatment. The principal here is that the dusty incoming air enters the baghouse and is subsequently filtered. Dusts are captured in the bag and cleaned air passes through it and forced out by the fan. Baghouse filters are known for their efficiency and cost effectiveness. Based on information received from the manufacturer of the dust collector system, the residual dust to be emitted is approximately <10mg / m^3. This proposed dust emission is considered low.

The actual measured total particulate matter during the monitoring event was 1.68 (mg/Nm^3) dry gas at a measured dry air flow rate of 29,197Nm^3/hr.

However, as this was just one monitoring event and given the start-up and initial commissioning phase of the WEEE separation process at the time of monitoring, KMK Metals requests that a maximum limit of 50mg/Nm^3 for total particulates be strongly considered as the license limit for the reviewed waste license. This limit will accommodate any additional treated dust emissions that may arise during periods of prolonged and/or repeat WEEE separations within the building.

Infrastructure and operation

EPA requests;

4. **Taking the process overviews presented in the EIS as a starting point, describe each unit process for de-pollution, dismantling and pollution abatement employed at the facility. State which area (A-E) of the facility each unit process is carried out.**

In response to this request, KMK has reviewed the descriptions of their operations at all locations on-site and therefore have prepared this summary table describing each process. This table should be used in conjunction with the modified aerial photo below showing the various waste processing areas at the KMK.

Aerial photo below illustrating the various waste processing areas and buildings at the KMK Metals.

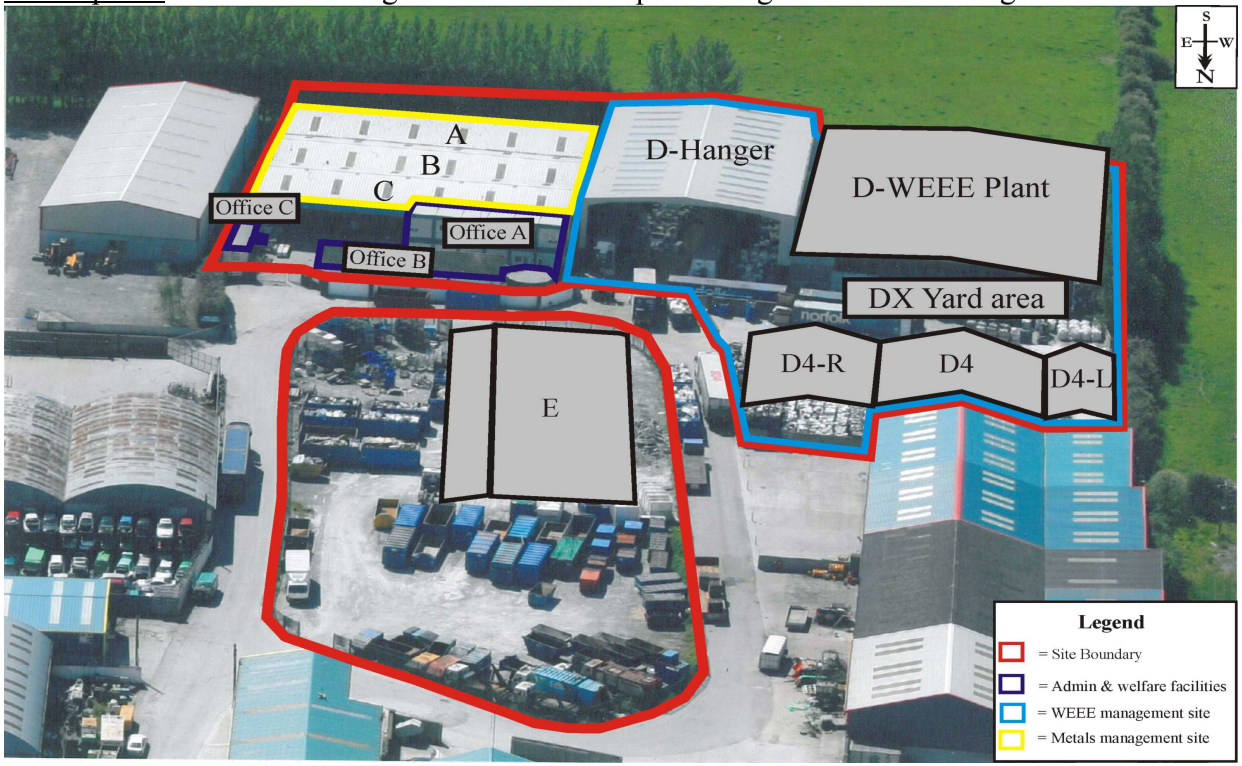

Table 1 Buildings/Area Uses and descriptions

Area	Building refs	Description of waste processes. [note 1]
Metallic wastes, sludges and liquids management areas	**Building A (self bunded secure area)**	Dedicated storage for non-ferrous metals, base metal fractions, and packaged filter cakes arriving directly from customers via KMK Metals (brand) collections. Metals arrive to building, are weighed, inspected, labelled, repacked and stored in their original containers. There is no processing of metals / metallic wastes at this location. Materials are transferred off-site once sufficient quantities are available.
	Building B (secure with bunded area)	This building is split into two separate locations i.e. a double bunded area with sump and a regular area with separate activities as follows: <u>Double bunded area with sump.</u> o Dedicated bunded storage for: waste oil removed from Oil Filled Radiators (at the D-Hanger building on-site); Lead Acid Batteries; sludges (typically clay consistency); liquids; and other materials (capacitors, ionisation chamber smoke detectors, and packaged nickel-cadmium batteries). o All incoming materials are weighed, inspected, labelled (as appropriate) and stored. o Lead acid batteries are checked, repackaged, palletised and stored prior to loading. o Sludges (with no processing) and occasional liquids are stored in this area. o Materials are transported for further recycling or treatment once a full consignment is achieved. o The 'Willfly separation machine' (shaker sorting table) is used for sorting minerals and other metals at this location.

		Regular B building area. o This area is used for sorting and repackaging of dry materials. o Cables are weighed, sorted and baled. Computer hard drives are weighed and shredded. o Materials are kept in dry storage and in-house stock labelling is updated until such as time as a viable consignment is achieved.
	Building C	This building is split into two separate locations i.e. an insulated warehouse area and a materials loading and off-loading area. The respective activities are as follows: Insulated secure warehouse area The use of this warehouse is flexible; it serves as an insulated, dry storage area, and can be used for dismantling / sorting when not required for insulated dry storage. At the moment it houses KMKs E-Scrap Dismantling Station and Tubes/Bulbs Sorting Area: o E-Scrap: KMK's Electronic Scrap dismantling station serves the purpose of dismantling items which are either too robust for KMKs WEEE Plant or which require manual disassembly for better recovery of component parts o Fluorescent Tubes and Light Bulbs of all types are collected typically by KMKs Van Drivers; they are delivered here where they are recorded and sorted by type, before being sent offsite for further recycling at facilities which specialises in recovery of glass and metal from tubes/bulbs. o All materials and fractions arising from these activities are sent for further recycling / recovery once a viable consignment is achieved.

		<u>Materials loading and off-loading area</u> o This area is used for off-loading (of incoming materials) and loading of materials arising from KMKs processes, plus temporary storage (under cover) of large bulky metal items and packaged items awaiting transport offsite.
Administration and Welfare Facilities	**Offices A, B & C**	Includes the main reception area and offices, meeting rooms, canteens and toilet facilities.
WEEE Management Areas (D Buildings)	**D-Hanger**	The Hanger building is an open ended dedicated WEEE receipt, bulk acceptance and pre-sorting area, with a large storage bay for pre-sorted WEEE pending processing through the WEEE Plant. Pre-sorted WEEE is loaded mechanically onto the WEEE Plant Conveyor in the Hanger Building. The activities inside the Hanger are as follows; o Pre-sorting of WEEE, this involves manually removing any item which is destined for processing elsewhere other than in the WEEE Plant (i.e. Monitors, Televisions, Oil Filled Radiators, Central Processing Units, and large / robust items which are dismantled as Electronic Scrap) and other items which are not suitable for the WEEE Plant (i.e. Paper, Wood, Compressed Cylinders). The removed items are collected in cages / bins and dispatched by fork lift truck to other areas on-site for processing. o Oil filled radiator de-pollution (removal of oil) takes place in the Hanger Building, on a purpose built and bunded frame, with a drip tray which feeds into an IBC. o Bulk acceptance and loading takes place under cover for materials for off-site export.

	D-WEEE Plant	The D-WEEE Plant fully enclosed secure building houses a dedicated **Smasher Process** for WEEE treatment i.e. a dedicated process for mechanical disassembly, granulation, shredding, and sorting of the various components of WEEE (plastics, metals, batteries, cables, capacitors and other handpicked items). *The general running of the WEEE plant is described below. This is subject to change, and only intended as a general overview: additional fractions (of either positive or negative value) may be removed at any particular stage, depending on the general composition of incoming material.* Pre-sorted WEEE travels from the Hanger Building via Conveyor **Belt 1**, which is a manned picking line for removal of cable, wood, plastic, smoke detectors, capacitors and any of the items for which KMK has a separate dedicated process (although these typically have already been removed during the pre-sort in the Hanger Building). Materials travel up the conveyor into a Trommel where they are broken down by a combination of gravity and impact within the machine: • Smaller pieces, by design, fall through the Trommel onto Conveyor **Belt 2,** which exits the Trommel House then passes under a magnetic separator; the result being small-sized ferrous and non-ferrous fractions. These fractions pass by manned conveyors, mainly for removal of batteries, circuit boards, connectors, and copper. The resulting non-ferrous fraction is a mix of plastics and metal, which is further segregated by the Eddy Current and/or Flotation Tank, as appropriate. • Larger pieces travel from the Trommel House on a conveyor to the **Sorting Cabin**, passing under a magnetic separator which segregates the materials onto two belts of (larger sized) non-ferrous and ferrous pieces.

		Belt 1 is manned for manual removal (picking) of plastic, packaging, circuit boards, transformers, motors, stainless steel, batteries, cable and aluminium; the residual is non-ferrous fraction which will be sent for further granulation through the Shredder. Any residual fraction which requires further granulation (i.e. as from the Sorting Cabin) can be put through the Shredder (also located in the WEEE Plant) whereby the material is shredded and then transported along a conveyor with overhead magnet which sorts the material (ferrous from non-ferrous). Residual fractions which are well granulated (but mixed, either mixed non-ferrous metals and plastics, or ferrous metals) are then put through either the Eddy Current or the Flotation Tank for final segregation of plastics and different types of metals.
	D4 building	This building is used to dismantle Cathode Ray Tube (CRT) monitors and televisions. The respective activities are follows: o CRT monitors and televisions are dismantled manually at dedicated work benches using a combination of power and hand tools. Dismantling involves: removing the outer housing; 'venting' the CRT (to prevent implosion); removing the Tip and the Copper Yoke; and cleaning the CRT so that it is ready for Glass Splitting. o Glass Splitting: cleaned CRTs travel along a conveyor to the Glass Splitting Station, whereby an operative uses a ribbon heater to weaken the glass between the front and back glass, so that it breaks at the right place, where after the front glass is removed from the back glass, the shadow mask is removed, and the powder coating is removed by vacuuming. Front glass and back glass is then sent for recycling at a specialised facility, and shadow masks are sent as steel.
	D4-R building	This building is currently used for Washing Machine Depollution and Steel Baling. The activities are follows:

		○ Large Household Appliances are inspected on collection and again on delivery at KMK, by the off-loading team. Washing Machines are offloaded to D4-R where they are dismantled by an operative. ○ The operative removes the Capacitor, any wood / plastic, and any items of positive recycling value (i.e. motors and cable). ○ De-polluted Washing Machines are then baled at this location using KMK's industrial horizontal baler (with Grab). Additional items made of steel and steel from KMKs other processes is also baled at this location. ○ Bales are loaded and sent off-site for further recycling at a specialised steel recycling facility.
	D4-L building	This building is used for Household Batteries Sorting. The activities are follows: ○ Incoming household batteries are stored inside the building in plastic containers until there is a viable quantity to warrant a sort activity. ○ Sorts are typically carried out by three specially trained operatives over a number of non-consecutive days. Batteries are loaded into a Hopper and fed along a conveyor whereby the various chemistries are handpicked into separate fractions bins (6 Volts, Nickel Cadmium, Lead, Nickel Metal Hydride, Lithium, Lithium Ion, and Button Cells; plus WEEE and Rubbish). ○ The remainder is predominantly Alkaline (96-98%), but is subject to a second sort to achieve the required >99%, and then a Quality Check. ○ Segregated batteries are stored in closed labelled containers or FIBC's (bags) before being sent offsite for recycling.

	DX Yard Area	This area is used for off-loading and loading of WEEE, including Large Household Items. Trucks deliver WEEE collections to the DX Yard. Fridges and Freezers are inspected, offloaded and re-stacked securely on an empty truck, which is stationed intentionally for this purpose (typically an empty truck body is delivered when a full one is collected). All other items are removed to the appropriate processing area (Washing Machines to D4-R; CRT to D4; Batteries to D4-L; mixed WEEE to the Hanger).
WEEE management	**E building**	This building has been created for additional storage and processing capacity of materials incoming and outgoing. Future planned activities will be as follows: KMK requires the flexibility to be permitted to relocate specific individual processes within E building for example but not limited to the operations previously described at D4-R building. Environmental controls include; the surface is impermeable (concreted), under roof, and drainage is channelled to KMKs new attenuation tank and interceptor, thereby controlling and managing all drainage. KMK may also require an air emissions point from E building (the precise nature and location of which is to be confirmed), to allow for a ventilation/extraction system should it be required in the future and associated with a waste treatment process.
	E yard area	This area is to be used for the following activities; o Logistics and vehicle movements. o Weighbridge usage and maintaining records o Storage for incoming waste materials and skips, containers. o Staff car parking.

Note 1 = All incoming wastes and materials to KMK Metals are profiled off-site by management prior to acceptance at the facility. This procedure ensures that all wastes are approved for acceptance to the site (under the terms of Waste Licence W0113-03) and that they are suitable prior to delivery at the facility. This waste profiling thus ensures minimal needs for waste quarantine requirements at the facility.

5. **Describe the processes for handling non-WEEE and liquid and sludge wastes in particular.**

The processes for handling non-WEEE, liquids (tradable metal containing liquids) and sludges are detailed previously in Table 1 above, please refer to the processes occurring in Buildings A, B and C for specific descriptions.

All incoming wastes and materials to KMK Metals are profiled off-site by management prior to acceptance at the facility. This procedure ensures that all wastes are approved for acceptance to the site (under the terms of Waste Licence W0113-03) and that they are suitable prior to delivery at the facility. This waste profiling thus ensures minimal needs for waste quarantine requirements at the facility.

6. **It is apparent from drawing no. 10-001-C02, Nov 2010, that the new weighbridge is to be located in an area outside the bounds of the security fencing required under condition 3.4 of the existing licence. Clarify whether this is provided for in planning permission. Describe the measures in place to protect the integrity of pollution control arrangements (e.g. drainage) at and from the weighbridge.**

The location of weighbridge No.1 is to be within a boundary wall on-site (within the proposed site boundary of the application). Therefore a 1.6m high precast concrete wall will ensure no unauthorised access of the weighbridge occurs and also that the drainage from the weighbridge is diverted through the proposed surface water management infrastructure (i.e. gullies, attenuation tank and interceptor units). The location of the weighbridge is provided in the existing planning permission ref: 10/46 as granted by Offaly County Council.

7. **State what procedures are in place to ensure there is no environmental impact (e.g. noise, dust and litter) arising from the movement of waste across the public road that divides the storage and processing areas of the facility.**

In terms of the public road, it should be noted that this road services users of the Cappincur Industrial Estate only and is not accessed by other road users, other than those using the industrial estate i.e. public use of this road is limited to users of the industrial estate.
The existing Environmental Controls across the E Area to other areas at the KMK facility are as follows:

- In accordance with KMK's Waste Licence (Condition 6.14) a weekly check is carried out of all potential nuisances relevant to KMK; this includes dust and litter, and is applicable to all site entrances and through-fares, including between E Area and the remainder of KMK
- A weekly inspection is carried out by KMKs Compliance Manager to ensure effective environmental control and housekeeping in all locations; any findings as a result of the inspection are addressed without delay by KMK's management team and supervisors.
- Traditionally dampening down has been and is the method for dust abatement on surfaced areas. In addition, KMK recently purchased a Road-Sweeper for sweeping of surfaced areas. The additional concrete surfacing of areas which

previously were not surfaced (at E area) will significantly reduce the amount of general dust at KMK.

- In terms of noise, all Fork Lift Drivers are carefully selected (i.e. must be qualified, competent and responsible) and they are trained to drive slowly – as this is not only safe practice but it also helps keep noise to a minimum. KMK carries out annual noise monitoring to verify noise emissions are non-nuisance at the facility.

8. Provide a copy of the duty and standby capacity report, 2009.

Please find attached a copy of the report 'Report on Duty & Capacity of Waste Handling Equipment' dated October 2008 (Appendix 2).

Planning Permissions

EPA requests

9. Provide a copy of the planning inspectors' reports for grant of planning permission 09/311 and 10/46.

Please find attach the copies of planners inspectors reports for the grant of planning permissions 09/311 and 10/46 (Appendix 3)

10. Provide a copy of the planning permission, if granted, and inspector's report for planning application 10/85.

In response please note that planning ref no: 10/85 was deemed to be incomplete by the Planning Authority on 8th March 2010 and as such the planning application was not processed and a decision did not therefore occur. In confirmation of this please see attached (Appendix 3) the printed extract from the Offaly County Council Planning Register no: 10/85.

11. Provide an update on any new planning permission sought or granted since.

The following is an update of new planning permissions sought or granted since:

Table 1: Planning Permissions applied for recently

Ref	Applicant	Description	Decision
10/101	KMK Metals Recycling Ltd	Demolition of an existing 1506 sq m warehouse and the construction of a new 1760 sq m warehouse with a maximum height of 11,530 sq m and all associated site works	Granted on 18th November 2012 subject to 11 no. conditions
11/306	KMK Metals Recycling Ltd	Retention of new ESB substation, switch rooms, and ancillary accommodation at ground floor (72.4 sq m) and new open plan offices at first floor (82.2 sq m) (total floor area being retained = 154.6 sq m) and associated site works, in	Incomplete / invalid

		existing skip storage building 'e' previously granted planning permission (ref no. 10/46) with an original total floor area of 1120 sq m and a maximum height of 8.55m at middle yard	

Source: www.offaly.ie

A copy of the planners report on planning reg. ref. No: 10/101 and recommendation to seek further information dated 6th May 2010 and a copy of the planner's report, recommendation to grant planning permission dated 12th October 2010 and associated Nature Impact Statement Screening Report is attached as part of Appendix 3.

As can be seen from the above planning application reg. ref. no: 11/306 was deemed to be invalid by the Planning Authority. A copy of a print out from the Council's website in relation to this application is attached as part of Appendix 3.

12. State whether planning permission is in place or is required for all proposed developments and activities that are currently before the Agency – for example, but not limited to:

I. Proposed increase in waste acceptance to 35,000 tonnes per annum; and

II. Installation of new WEEE processing equipment and associated dust emission point.

ENVIROCO Management Ltd wrote to the planning section of OCC in relation to this item on the 16th January 2012 for a meeting and again 10th February 2012 and requested a prompt response. A letter was received on the 20th February 2012 from OCC and a copy is attached as part of Appendix 3.

The letter states that a planning application together with an Environmental Impact Statement (EIS) is required for the proposal detailed in I and II above.

KMK Metals are now progressing forward with the preparation of this planning application to Offaly County Council and will submit it as a matter of priority in due course.

Waste acceptance

EPA requests

13. By reference to Table A.2 of the existing licence (that itself refers to the original 1999 waste licence application) and section H of the application form, provide an up to date analysis of the nature and quantity of waste sought for inclusion in a revised licence.
In this analysis, it is not necessary to correlate projected waste quantities narrowly with EWC codes. Broad waste categories are generally adequate, as suggested in the table below. To the extent possible, indicate appropriate six-digit EWC codes to be associated with each broad waste category. The following table, or an alternative format, can be used in compiling this information.
KMK Metal's response; Please see revised table below for the lists of EWC codes both accepted to date and also a full listing in the final column to be included in the proposed licence.

Broad Waste Category	**EWC codes associated with this category handled at KMK Metals to date**	**Complete listing of EWC codes associated with this category for inclusion on the waste licence.**
For example, but not limited to:		
Hazardous WEEE	16 02 09*, 16 02 13*, 20 01 21*, 20 01 35*	16 02 09*, 16 02 13*, 20 01 21*, 20 01 35*
Non-hazardous WEEE	16 02 14, 16 02 16, 20 01 36	16 02 14, 16 02 16, 20 01 36
Fridges and freezers (if not counted above)	16 02 11*, 20 01 23*	16 02 11*, 20 01 23*
Batteries (household)	16 06 04, 20 01 33*	16 06 04, 20 01 33*
Batteries (lead acid)	16 06 01*	16 06 01*
Batteries (other)	16 06 02*, 16 06 03*, 16 06 04, 16 06 05, 20 01 33*	16 06 02*, 16 06 03*, 16 06 04, 16 06 05, 16 06 06*, 20 01 33*, 20 01 34.
Non-WEEE electrical equipment/electronics	None	16 02 09*, 16 02 10*, 16 02 11*, 16 02 12*, 16 02 14, 16 02 15*, 16 02 16,
Filter cakes	06 05 02*, 11 01 09*, 11 01 10, 12 01 20*	06 05 02*, 07 01 99*, 07 01 10*, 07 02 09*, 07 02 10*, 07 03 09*, 07 03 10*, 07 04 09*, 07 04 10, 07 05 09*, 07 05 10, 07 06 09*, 07 06 10*, 07 07 09*, 07 07 10*, 11 01 09*, 11 01 10, 12 01 20*, 19 01 05*

Broad Waste Category	**EWC codes associated with this category to date**	**EWC codes associated with this category**
Precious metal scrap	12 01 03, 16 02 16, 16 08 01	12 01 03, 16 02 16, 16 08 01, 16 08 02*, 16 08 03, 16 08 07*
Other metallic wastes	06 04 99, 12 01 01, 12 01 03, 12 01 13, 12 01 21, 16 02 14, 16 02 16, 16 03 04, 19 12 02, 19 12 03, 20 01 40	02 01 10, 10 08 14, 11 05 01, 11 05 02, 12 01 01, 12 01 02, 12 01 03, 12 01 04, 12 01 20*, 12 01 99, 16 01 08*, 16 01 12, 16 01 17, 16 01 18, 16 11 01*, 16 11 02, 16 10 03*, 16 11 04, 17 04 01, 17 04 02, 17 04 03, 17 04 04, 17 04 05, 17 04 06, 17 04 07, 17 04 09*, 17 04 10*, 17 04 11, 17 09 01*, 18 01 10*, 19 10 01, 19 10 02, 19 10 03*, 19 10 04, 19 10 05*, 19 10 06, 19 12 02, 19 12 03, 20 01 40, 20 01 99
Sludges	None	01 03 05*, 01 03 06, 05 01 99*, 05 01 10, 06 05 02*, 06 05 03, 07 01 11*, 07 01 12, 07 02 11*, 07 02 12, 07 03 11*, 07 03 12, 07 04 11*, 07 04 12, 07 05 11*, 07 05 12, 07 06 11*, 07 06 12, 07 07 11*, 07 07 12, 08 02 02, 08 02 03, 10 01 07, 10 01 20*, 10 01 21, 10 01 22*, 10 01 23, 10 02 13*, 10 02 14, 10 02 15, 10 02 99, 10 03 25*, 10 03 26, 10 05 06*, 10 06 07*, 10 07 05, 10 08 17*, 10 08 18, 11 01 08*, 11 01 09*, 11 01 10, 11 01 15*, 11 01 16*, 11 01 98*, 11 01 99, 11 02 02*, 11 02 03, 11 02 05*, 11 02 06, 11 02 07*, 11 02 99, 12 01 12*, 12 01 14*, 12 01 15, 12 01 18*, 14 06 04*, 14 06 05*, 19 02 05*, 19 02 06,
Liquid wastes	None	06 01 01*, 06 01 02*, 06 01 03*, 06 01 04*, 06 01 05*, 06 01 06*, 06 01 99, 08 01 17*, 08 01 18, 08 03 12*, 08 03 13, 09 01 04*, 09 01 06*, 11 01 05*, 11 01 06*, 11 01 07*, 12 01 09*, 12 01 10*, 14 06 01*, 14 06 02*, 14 06 03*, 16 08 04, 16 08 05*, 16 08 06*, 16 08 07*, 16 10 01*, 16 10 02, 16 10 03*, 16 10 04*, 19 01 06*
Packaging wastes	15 01 01, 15 01 02, 15 01 03, 15 01 06, 15 01 07	15 01 01, 15 01 02, 15 01 03, 15 01 04, 15 01 05, 15 01 06, 15 01 07, 15 01 09, 15 01 10*, 15 01 11*

Broad Waste Category	**EWC codes associated with this category to date**	**EWC codes associated with this category**
Oxide Powders (hazardous and non hazardous)	12 01 17, 12 01 20*, 12 01 21, 16 02 16	06 03 16, 12 01 17, 12 01 20*, 12 01 21, 16 02 16,
Other wastes for acceptance	19 12 04	01 03 07*, 01 03 08, 01 03 09, 01 03 99, 01 04 07*, 01 04 09, 01 04 10, 01 04 12, 01 04 99, 02 01 99, 05 01 14, 05 01 15*, 05 01 99, 05 07 01*, 06 02 01*, 06 02 04*, 06 02 05*, 06 03 11*, 06 03 13*, 06 03 14, 06 03 99, 06 04 03*, 06 04 04*, 06 04 05*, 06 04 99, 06 05 02*, 06 06 03, 06 06 99, 06 08 02*, 06 08 99, 06 11 01, 06 11 99, 06 13 02*, 06 13 03, 06 13 99, 07 01 09*, 07 02 13, 07 02 99, 07 03 99, 07 04 13*, 07 04 99, 07 05 13*, 07 05 14, 07 05 99, 07 06 99, 07 07 99, 08 01 99, 08 02 01, 08 02 99, 08 03 17*, 08 03 18, 08 03 99, 09 01 07, 09 01 08, 09 01 10, 09 01 11*, 09 01 12, 09 01 99, 10 01 01, 10 01 05, 10 01 14*, 10 01 15, 10 01 16*, 10 01 17, 10 01 18*, 10 01 19, 10 01 24, 10 01 99, 10 03 02, 10 03 04*, 10 03 05, 10 03 15*, 10 03 16, 10 03 18, 10 03 19*, 10 03 20, 10 03 21*, 10 03 22, 10 03 23* , 10 03 24, 10 03 99, 10 04 01*, 10 04 02*, 10 04 03*, 10 04 04*, 10 04 05*, 10 04 06*, 10 04 07*, 10 04 99, 10 05 01, 10 05 03*, 10 05 04, 10 05 05*, 10 05 10*, 10 05 11, 10 05 99, 10 06 01, 10 06 02, 10 06 03*, 10 06 04, 10 06 06*, 10 06 99, 10 07 01, 10 07 02, 10 07 03, 10 07 04, 10 07 99, 10 08 04, 10 08 09, 10 08 10*, 10 08 11, 10 08 13, 10 08 15*, 10 08 16, 10 08 99, 10 09 03, 10 09 05*, 10 09 06, 10 09 07*, 10 09 08, 10 09 09*, 10 09 10, 10 09 11*, 10 09 12, 10 09 13*, 10 09 14, 10 09 99, 10 10 03, 10 10 05*, 10 10 06, 10 10 07*, 10 10 08, 10 10 09*, 10 10 10, 10 10 11*, 10 10 12, 10 10 13*, 10 10 14, 10 10 99, 10 11 09*, 10 11 10, 10 11 11*, 10 11 12, 10 11 99, 10 12 01, 10 12 08, 10 12 12,

		10 12 99, 10 14 01*, 11 05 03*, 11 05 99, 12 01 05, 12 01 16*, 12 01 17, 16 01 21*, 16 01 22, 16 01 99, 16 03 03*, 16 03 04, 16 03 05*, 16 03 06, 16 05 04*, 16 05 05, 16 11 05*, 16 11 06, 19 12 04, 19 01 07*, 19 01 10*, 19 01 11*, 19 01 12, 19 01 13*, 19 01 14, 19 01 15*, 19 01 16, 19 01 17*, 19 01 18, 19 01 19, 19 01 99, 19 02 03, 19 02 04*, 19 02 11*, 19 02 99, 19 03 04*, 19 03 05, 19 03 06*, 19 03 07, 19 04 01, 19 08 06*, 19 08 08*, 19 08 99, 19 09 04, 19 09 05, 19 12 01, 19 12 04, 19 12 05, 19 12 07, 19 12 09, 19 12 11*, 19 12 12
Filter materials	15 02 03	15 02 02*, 15 02 03
Special metal alloys	06 04 99, 06 13 99, 12 01 01, 12 01 02, 12 01 03, 12 01 04, 12 01 20*, 12 01 21, 16 02 14	06 04 99, 06 13 99, 12 01 01, 12 01 02, 12 01 03, 12 01 04, 12 01 20*, 12 01 21, 16 02 14

Foul sewer connection

EPA requests

14. Provide an update on the proposed connection to the local foul sewer network and describe the nature and quantity of any discharges made thereto.

At present there is no actual up-date to the proposals from Offaly County Council to provide a foul sewer network in Cappincur Industrial Estate. Therefore KMK will be continuing to use their own waste water treatment plant for management of domestic effluent.

A revised non technical summary (application form) is attached which reflects the aforementioned information and also the present and future site operations at the facility.

There is no revised non technical summary (EIS) attached by virtue of the requirement to submit a new planning application with EIS as directed by Offaly County Council in the letter attached to Appendix 3 and dated 17-02-2012.

If you have any questions, please do not hesitate to contact me.

Yours Sincerely,

Niall Nally

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Niall Nally
Senior Environmental Consultant
Cc Kurt M Kyck, KMK Metals Recycling Ltd, Cappincur Industrial Estate, Tullamore, Co Offaly.