



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

1st July 2013

RE: KMK Metals Recycling Ltd. (KMK)
Waste licence ref: W0113-04
Article 16(1) of the Waste Management (Licensing) Regulations

Dear Mr Meaney,

Further to point number 2 of your letter dated 18th April 2013, I now on behalf of KMK wish to provide additional information in order to assist you in determination of the licence application. Therefore please refer below;

EPA request – Point 2:

It is apparent from available monitoring results at the existing emission point A2-8 that the mass emissions of arsenic, cadmium, chromium, mercury, nickel and lead exceed 20% of mass flow thresholds for these parameters expressed in the BAT guidance note/or the surface treatment of metals and plastic materials and/or BAT guidance note for non ferrous metals and galvanising. This means that the emission at A2-8 cannot be regarded as a minor emission. Please provide a quantification of the environmental impact of the emission from A2-8 in accordance with the Agency guidance document Air Dispersion Modelling from Industrial Installations Guidance Note (AG4) to demonstrate that emissions will not result in relevant air quality standards being exceeded. The analysis/model should be carried out on the following basis:

- at A2-8 alone, and
- A2-8 in combination with any proposed emissions points.

It may be appropriate to use a screening model first to establish whether the emissions should be analysed using an advanced air dispersion model and any decision to rely solely on a screening model

should be justified. The model report should clearly identify the volumetric flow rates and emission levels (concentrations) modelled at each emission point. The impact of the parameters mentioned above, as well as the following parameters, should be considered: particulates/dust, thallium, aluminium, zinc.

KMK response;

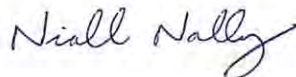
Extracted air from inside the D-WEEE Plant building is discharged through the stack emission point ref; A2-8. The stack emission point is controlled effectively using a recently installed cyclone abatement plant (screening out the larger dust particles from the incoming air) with the air containing fine dust particles being blown out for further treatment using the existing bag house filter system. This double treatment effect will be very effective to ensure particulate emissions are minimal and within emission limit values of the waste license. A most recent air emissions monitoring event was carried out by Glenside Environmental on the 21st May 2013 post installation of the cyclone abatement system and the results are attached in Appendix 1 of this submission. Hence, these monitoring results give the most appropriate indication of the emission quality from A2-8 going forward at KMK.

Dr Edward Porter of AWN Consulting was commissioned by Nally Environmental on behalf of KMK to carry out a Screening Air Model Assessment of the emissions from A2-8 based on the recent Glenside Environmental monitoring report. The full Screening report is attached in Appendix 2 to this submission. In summary the report concludes *'The model results show that all predicted ambient concentrations of pollutants are well within their respective limit values at a stack height of 10.7m. Thus the impact of the metal recycling facility on ambient air quality in the region is not significant and will not lead to a breach of the ambient air quality standards'*. Hence no further air dispersion modeling is required for stack A2-8. Please note the model assessment could not be carried out for A2-8 in combination with any other proposed emissions points as there are no exact details available at this point.

I also enclose the revised non-technical summary (application form and EIS) as requested in your note and 16CD-ROM pdf copies of the same information.

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

Yours Sincerely,



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

APPENDIX 1

GLENSIDE ENVIRONMENTAL Monitoring Report dated 21-05-2013

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Company Name: KMK Metals Recycling Ltd
Licence No: W0113-03
Year: 2013, Visit No: 1
Report No: 013-022-02



Glenside Environmental
Cuil Greine House
Ballincollig Commercial Park
Link Road
Ballincollig
Cork

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Stack Emissions Monitoring Report

for

KMK Metals Recycling Ltd.

Cappincur Industrial Estate, Daingean Road, Tullamore,
Co. Offaly

EPA IPPC Licence REF: W0113-03

Report No: 013-022-02

**Monitoring Date:
21st May 2013**



Report Summary:	
Job Quotation No:	QGE13-016
Operator Licence No:	W0113-03
Operator Name:	KMK Metals Recycling Ltd.
Installation:	Cappincur Industrial Estate, Daingean Road, Tullamore, Co. Offaly
Contact Name:	Mr. Niall Nally
Phone No:	044 9666773, 086 8547071
Monitoring dates:	21/05/2013
Monitoring Organisation:	Glenside Environmental Cuil Greine House Link Road Ballincollig Cork
Phone No:	(021) 4810016
Email:	info@glenenv.ie
Report Date:	10/08/2012
Report written by:	Ewa Piatek
MCERTS reg No:	MM07 799
Competency:	Level 2
Function:	Team Leader
Endorsements:	TE1, TE2, TE3, TE4
Signed:	
Report approved by:	Ewa Piatek
MCERTS reg No:	MM07 799
Competency:	Level 2
Function:	Team Leader
Endorsements:	TE1, TE2, TE3, TE4
Signed:	

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1. Introduction

Glenside Environmental was commissioned by KMK Metals Recycling Ltd to perform air emission monitoring at their facility in Cappincur Industrial Estate, Dalngan Road, Tullamore, Co. Offaly. The monitoring was carried out in accordance with requirements of Waste Licence W0113-03. This report presents details of this monitoring programme.

2. Objectives

2.1. Substances to be monitored at each emission point

Sample Locations	Parameter
A2-8	Particulates
	Metals (Total of Cd+Tl)
	Metals (Total of Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V, Be)
	Chromium
	Lead
	Mercury
	Aluminium
	Arsenic
	Cadmium
	Copper
	Iron
	Nickel
	Zinc

2.2. Special Requirements

There were no special requirements for this monitoring campaign.

3. Materials and Methods

This section provides brief details of the methodologies employed to perform the air emission monitoring.

3.1. Particulates

A sample stream of gas is extracted from the main gas stream at representative sampling points for 30 minutes, with an isokinetically controlled flow rate and measured volume. The dust entrained in the gas sample is separated by a pre-weighed filter, which is then dried and reweighed. Deposits upstream of the filter in the sampling equipment are also recovered and weighed. The increase of mass of the filter and the deposited mass upstream of the filter are attributed to dust collected from the sampled gas, which allows the dust concentration to be calculated.

3.2. Metals

A known volume of flue gas is extracted representatively from a duct or a chimney during a certain period of time at a controlled flow rate following EN13284-1:2004 (Particulates Standard). The dust in the sampled gas volume is collected on a filter. Thereafter, the gas stream is passed through a series of absorbers containing absorption solutions and the filter passing fractions of the specific elements are collected within these solutions.

The results are calculated from the laboratory results divided by air volume sampled and are converted to mg/m³. Results in kg/hr are calculated from concentration of pollutant and stack flow rate. All results are corrected to Standard Temperature and Pressure. LOD values are obtained from laboratory LOD and the same calculations as per results.

3.3. Volumetric Flow Rate

The volumetric airflow rate was determined from stack velocity measurements calculated in accordance with BS EN 13284. Airflow rate and temperature profiles were performed at pre-calculated intervals across the stack in order to determine the average velocity profile across the stack diameters. Results are presented in table 4.3.

4. Monitoring Results

Tables 4.1 present results of the air emission monitoring sampling program carried out at the emission stacks listed below.

4.1. Monitoring Results

Results reported are corrected to reference conditions as per IPPC Licence requirements.

Emission Point	Substances	ELV mg/Nm ³	CEMS Results	LOD mg/Nm ³	Results mg/Nm ³	Results kg/hr	Uncertainty mg/m ³	Date of Monitoring	Start –End Time of Monitoring
A2-8	Particulates	12.5	n/a	0.24	0.4	0.01	0.27	21/05/2013	11:47-12:17
A2-8	Metals (Total of Cd+Tl)	n/a	n/a	0.0018	<0.0018	n/a	n/a	21/05/2013	13:04-13:34
A2-8	Metals (Total of Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V, Be)	n/a	n/a	0.0140	0.0279	0.0007	n/a	21/05/2013	13:04-13:34
A2-8	Chromium	n/a	n/a	0.0025	0.0031	0.0001	n/a	21/05/2013	13:04-13:34
A2-8	Lead	n/a	n/a	0.0009	0.0107	0.0003	n/a	21/05/2013	13:04-13:34
A2-8	Mercury	n/a	n/a	0.0003	0.0010	n/a	n/a	21/05/2013	14:00-14:30
A2-8	Aluminium	n/a	n/a	0.0014	0.0455	0.0011	n/a	21/05/2013	13:04-13:34
A2-8	Arsenic	n/a	n/a	0.0008	<0.0008	n/a	n/a	21/05/2013	13:04-13:34
A2-8	Cadmium	n/a	n/a	0.0009	<0.0009	n/a	n/a	21/05/2013	13:04-13:34
A2-8	Copper	n/a	n/a	0.0010	0.0021	n/a	n/a	21/05/2013	13:04-13:34
A2-8	Iron	n/a	n/a	0.0008	0.0140	0.0003	n/a	21/05/2013	13:04-13:34
A2-8	Nickel	n/a	n/a	0.0024	0.0032	0.0001	n/a	21/05/2013	13:04-13:34
A2-8	Zinc	n/a	n/a	0.0008	2.1024	0.0506	n/a	21/05/2013	13:04-13:34

Emission Point	Substances	ELV mg/Nm ³	CEMS Results	LOD mg/Nm ³	Results mg/Nm ³	Results kg/hr	Uncertainty mg/m ³	Date of Monitoring	Start –End Time of Monitoring
Blank	Particulates	n/a	n/a	0.24	<0.24	n/a	0.02	21/05/2013	11:25-11:29
Blank	Metals (Total of Cd+Tl)	n/a	n/a	0.0018	<0.0018	n/a	n/a	21/05/2013	12:33-12:30
Blank	Metals (Total of Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V, Be)	n/a	n/a	0.0140	0.0152	n/a	n/a	21/05/2013	12:33-12:30
Blank	Chromium	n/a	n/a	0.0025	<0.0025	n/a	n/a	21/05/2013	12:33-12:30
Blank	Lead	n/a	n/a	0.0009	0.00043	n/a	n/a	21/05/2013	12:33-12:30
Blank	Mercury	n/a	n/a	0.0003	<0.0003	n/a	n/a	21/05/2013	13:43-14:49
Blank	Aluminium	n/a	n/a	0.0014	0.0026	n/a	n/a	21/05/2013	12:33-12:30
Blank	Arsenic	n/a	n/a	0.0008	<0.0008	n/a	n/a	21/05/2013	12:33-12:30
Blank	Cadmium	n/a	n/a	0.0009	<0.0008	n/a	n/a	21/05/2013	12:33-12:30
Blank	Copper	n/a	n/a	0.0010	<0.0010	n/a	n/a	21/05/2013	12:33-12:30
Blank	Iron	n/a	n/a	0.0008	0.0039	n/a	n/a	21/05/2013	12:33-12:30
Blank	Nickel	n/a	n/a	0.0024	0.0025	n/a	n/a	21/05/2013	12:33-12:30
Blank	Zinc	n/a	n/a	0.0008	0.0023	n/a	n/a	21/05/2013	12:33-12:30

4.2. Reference Conditions

Emission Point	Reference Temperature	Reference Pressure	Reference Moisture	Reference Oxygen
A2-8	273 K	101.3 kPa	No correction	No correction

4.3. Volumetric Flow Rate

Emission Point	Actual Moist Flow Rate	Moist Flow Rate at STP	Dry Flow Rate at STP	Emission Limit Value	Units
A2-8	25287.89	24056.46	n/a	40 000	m ³ /Hr

4.4. Methods and Accreditation Status

Emission Point	Substances	Method	SOP Number	Accreditation Status	Analysis Laboratories	Accreditation Status
A2-8	Flow, Temperature and Pressure	BS EN 13284-2002	GEN3-001	n/a	n/a	n/a
A2-8	Particulates	BS EN 13284-2002	GEN3-001	n/a	SAL Laboratories Manchester	UKAS
A2-8	Metals	BS EN 14385:2004	GEN3-014	n/a	SAL Laboratories Manchester	n/a

5. Operating Information

Emission Point	Process Status Load /Feedstock	Process Details	Fuel /Feedstock	Abatement System	Status of Abatement System
A2-8	Normal Operation	Full Load	n/a	Filter	In Operation

6. Monitoring Deviation

Requirements	Comments
Substances were monitored as per monitoring objectives	Yes
Substances were monitored in accordance with the monitoring stated in AG2 (Air Emissions Monitoring Guidance Note#2)	Yes
All monitoring substances were carried out as per Standard/Methods requirements.	Yes

Sampling Location Summary

Requirements	Comments
Stack Shape	Circular
Dimensions	0.8
Recommended 5 hydraulic diameters straight length before sampling plane	Yes
Recommended 2 hydraulic diameters straight length after sampling plane	No
Sufficient ports number Small stacks(<0.7) – 1 port 0.7-1.5m – 2 ports >1.5m – 4 ports	1 port
Appropriate port size	Yes
Suitable working platform	Yes
Safe and clean working environment	Yes

7. Annex 1

7.1. Personnel

Scientist/Technician Name	Position	Qualification	Technical Endorsements	MCERTS Number
Ewa Piatek	Technician	Level 2	TE1, TE2, TE3, TE4	MM07 799
Patrick Power	Technician	Trainee	-	MM12 1183

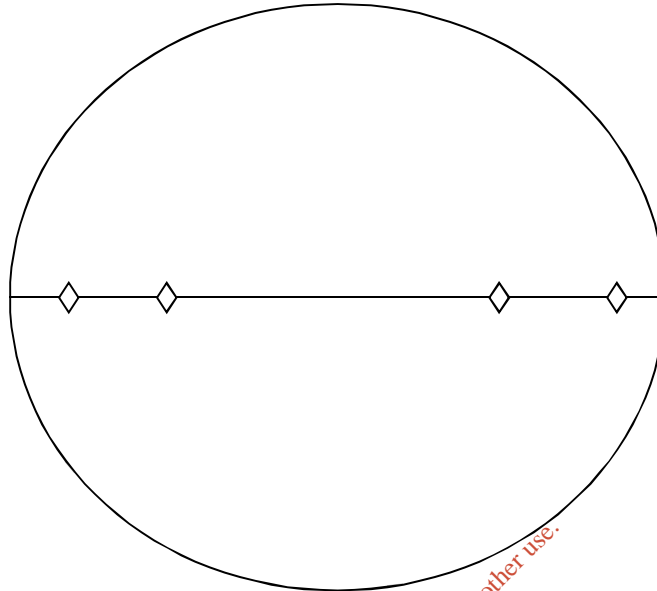
7.2. Equipment used

Equipment	GEN Equipment No
Millennium Instruments Method 5 Sampler	EQ069
Impinger System	
Probe	
Pitot tube	
Nozzles	
Filters	Laboratory supplied

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8. Annex 2

8.1. Diagrams of the stack



8.2. Sampling measurements

Determinant	Result	Units
Number of Ports Sampled	1	-
Number of Points Sampled	4	-
Average Velocity v'a	13.97	m/s
Average Pressure	101.3	kPa
Average Temperature	22.35	°C
Stack Diameter	0.8	m
T Reference	273	Deg K
P Reference	101.3	kPa
Isokinetic condition	Part 92.07 Metals 105.01 Mercury 91.40	%
Oxygen	n/a	%
Water vapour	n/a	%

9. Annex 3

9.1. Results and uncertainty calculations, certificates of analysis

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Scientific Analysis Laboratories Ltd

Certificate of Analysis

Hadfield House
Hadfield Street
Cornbrook
Manchester
M16 9FE
Tel : 0161 874 2400
Fax : 0161 874 2404

Scientific Analysis Laboratories is a limited company registered in England and Wales (No 2514788) whose address is at Hadfield House, Hadfield Street, Manchester M16 9FE

Report Number: 331756-1

Date of Report: 06-Jun-2013

Customer: Glenside Environmental
Cuil Greine House
Ballincollig Commercial Park
Link Road
Ballincollig.
CO. CORK.

Customer Contact: Mr Patrick Power

Customer Job Reference: 013-022-02 KMK STACK
Customer Purchase Order: 013-022-02 KMK STACK
Customer Site Reference: KMK Metals
Date Job Received at SAL: 24-May-2013
Date Analysis Started: 28-May-2013
Date Analysis Completed: 06-Jun-2013

The results reported relate to samples received in the laboratory
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
Tests covered by this certificate were conducted in accordance with SAL SOPs
All results have been reviewed in accordance with QP22



1549

Report checked
and authorised by :
Jennifer Wraith
Sales Support Manager

Issued by :
Jennifer Wraith
Sales Support Manager

Validity unknown

Digitally signed by Jennifer Wraith
Date: 2013.06.06 17:05:09 BST
Reason: Issue
Location: SAL

SAL Reference: 331756						
Project Site: KMK Metals						
Customer Reference: 013-022-02 KMK STACK						
Filter Quartz 47mm Analysed as Filter Quartz 47mm						
Miscellaneous						
					SAL Reference	
					331756 011	331756 012
					Customer Sample Reference	
					022-02-11	022-02-12
					Test Sample	
					AR	AR
Determinand	Method	LOD	Units	Symbol		
Filter Preparation	Grav			N	-	-
Particulates (Total)	Grav (5 Dec)	0.05	mg	U	<0.05	<0.05

SAL Reference: 331756						
Project Site: KMK Metals						
Customer Reference: 013-022-02 KMK STACK						
Filter Analysed as Filter						
Miscellaneous						
					SAL Reference	
					331756 017	
					Customer Sample Reference	
					022-02-17	
					Test Sample	
					AR	
Determinand	Method	LOD	Units	Symbol		
Mercury	CVAFS (HF Digest BS EN 13211)	0.01	µg	U		<0.01

SAL Reference: 331756						
Project Site: KMK Metals						
Customer Reference: 013-022-02 KMK STACK						
Probe Wash (27.5%HNO3) Analysed as Probe Wash (27.5%HNO3)						
Miscellaneous						
					SAL Reference	
					331756 016	
					Customer Sample Reference	
					022-02-16	
					Test Sample	
					AR	
Determinand	Method	LOD	Units	Symbol		
Mercury	CVAFS (HF Digest BS EN 13211)	0.01	µg	U		(3) <0.02

SAL Reference: 331756							
Project Site: KMK Metals							
Customer Reference: 013-022-02 KMK STACK							
Impinger (2%KMnO4/10%H2SO4) Analysed as Impinger (2%KMnO4/10%H2SO4)							
Miscellaneous							
				SAL Reference			
				331756 013	331756 014	331756 015	
				Customer Sample Reference			
				022-02-13	022-02-14	022-02-15	
				Test Sample			
				AR	AR	AR	
Determinand	Method	LOD	Units	Symbol			
Mercury	CVAFS (BS EN 13211)	0.5	µg/l	U	17	1.9	1.2
Volume	CVAFS (BS EN 13211)	1	ml	U	94	100	62

SAL Reference: 331756						
Project Site: KMK Metals						
Customer Reference: 013-022-02 KMK STACK						
Wash(DI) Analysed as Wash(DI)						
Miscellaneous						
					SAL Reference	
					331756 003	331756 004
					Customer Sample Reference	
					022-02-03	022-02-04
					Test Sample	
					AR	AR
Determinand	Method	LOD	Units	Symbol		
Particulates (Total)	Grav	0.1	mg	U	0.2	<0.1

SAL Reference: 331756							
Project Site: KMK Metals							
Customer Reference: 013-022-02 KMK STACK							
Filter GFA 47mm Analysed as Filter GFA 47mm							
Miscellaneous							
					SAL Reference	331756 001	331756 002
					Customer Sample Reference	022-02-01	022-02-02
					Test Sample	AR	AR
Determinand	Method	LOD	Units	Symbol			
Particulates (Total)	Grav (5 Dec)	0.05	mg	U	<0.05	<0.05	

SAL Reference: 331756							
Project Site: KMK Metals							
Customer Reference: 013-022-02 KMK STACK							
Filter Extraction Analysed as Filter							
Filter suite 3							
					SAL Reference	331756 011	331756 012
					Customer Sample Reference	022-02-11	022-02-12
					Test Sample	FE	FE
Determinand	Method	LOD	Units	Symbol			
Aluminium	ICPMS (HF BS EN 14385)	0.5	µg	N	(64) 5.4	(64) <0.5	
Antimony	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Arsenic	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Beryllium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Cadmium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Chromium	ICPMS (HF BS EN 14385)	1	µg	U	<1	<1	
Cobalt	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Copper	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Iron	ICPMS (HF BS EN 14385)	1	µg	N	(64) 15	(64) 3	
Lead	ICPMS (HF BS EN 14385)	0.5	µg	U	0.9	0.5	
Manganese	ICPMS (HF BS EN 14385)	0.5	µg	U	(13) <0.5	<0.5	
Nickel	ICPMS (HF BS EN 14385)	1	µg	U	<1	<1	
Thallium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Vanadium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5	<0.5	
Zinc	ICPMS (HF BS EN 14385)	1	µg	N	(64) 2	(64) <1	

SAL Reference: 331756							
Project Site: KMK Metals							
Customer Reference: 013-022-02 KMK STACK							
Probe Wash (27.5% HNO3) Analysed as Probe Wash (27.5% HNO3)							
Suite B							
					SAL Reference	331756 009	
					Customer Sample Reference	022-02-09	
					Test Sample	AR	
Determinand	Method	LOD	Units	Symbol			
Aluminium	ICPMS (HF BS EN 14385)	1	µg	N	(64) <1		
Antimony	ICPMS (HF BS EN 14385)	1	µg	U	<1		
Arsenic	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Beryllium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Cadmium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Chromium	ICPMS (HF BS EN 14385)	2	µg	U	<2		
Cobalt	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Copper	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Iron	ICPMS (HF BS EN 14385)	1	µg	N	(64) <1		
Lead	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Manganese	ICPMS (HF BS EN 14385)	2	µg	U	<2		
Nickel	ICPMS (HF BS EN 14385)	2	µg	U	<2		
Thallium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Vanadium	ICPMS (HF BS EN 14385)	0.5	µg	U	<0.5		
Zinc	ICPMS (HF BS EN 14385)	1	µg	N	(64) <1		

SAL Reference: 331756 Project Site: KMK Metals Customer Reference: 013-022-02 KMK STACK Impinger (5%HNO3/5%H2O2) Analysed as Impinger (3.3%HNO3/1.5%H2O2) Suite C								
SAL Reference					331756 005	331756 006	331756 007	331756 008
Customer Sample Reference					022-02-05	022-02-06	022-02-07	022-02-08
Test Sample					AR	AR	AR	AR
Determinand	Method	LOD	Units	Symbol				
Aluminium	ICPMS (BS EN 14385)	1	µg/l	N	⁽⁶⁴⁾ 260	⁽⁶⁴⁾ 310	^(63,64) <20	^(63,64) <20
Antimony	ICPMS (BS EN 14385)	0.5	µg/l	U	<0.5	<0.5	<0.5	<0.5
Arsenic	ICPMS (BS EN 14385)	0.2	µg/l	U	<0.2	<0.2	<0.2	<0.2
Beryllium	ICPMS (BS EN 14385)	0.5	µg/l	U	<0.5	<0.5	<0.5	<0.5
Cadmium	ICPMS (BS EN 14385)	0.5	µg/l	U	<0.5	<0.5	<0.5	<0.5
Chromium	ICPMS (BS EN 14385)	0.5	µg/l	U	3.2	2.7	3.7	1.1
Cobalt	ICPMS (BS EN 14385)	0.2	µg/l	U	0.3	<0.2	0.4	0.3
Copper	ICPMS (BS EN 14385)	1	µg/l	U	5	7	5	<1
Iron	ICPMS (BS EN 14385)	1	µg/l	N	^(64,63) <10	^(63,64) <10	⁽⁶⁴⁾ 99	^(63,64) <10
Lead	ICPMS (BS EN 14385)	0.3	µg/l	U	9.5	4.6	12	5.8
Manganese	ICPMS (BS EN 14385)	2	µg/l	U	4	12	6	22
Nickel	ICPMS (BS EN 14385)	2	µg/l	U	<2	<2	<2	<2
Thallium	ICPMS (BS EN 14385)	0.3	µg/l	U	<0.3	<0.3	<0.3	<0.3
Vanadium	ICPMS (BS EN 14385)	0.3	µg/l	U	<0.3	<0.3	<0.3	<0.3
Zinc	ICPMS (BS EN 14385)	1	µg/l	N	⁽⁶⁴⁾ 38000	⁽⁶⁴⁾ 540	⁽⁶⁴⁾ 76	^(64,63) <10
Volume	ICPMS (BS EN 14385)	1	ml	U	68	100	110	90

Index to symbols used in 331756-1

Value	Description
FE	Filter Extraction
AR	As Received
3	LOD Raised Due to Elevated Blank
63	LOD was raised because an alternative analytical procedure was used
13	Results have been blank corrected
64	Analysis was performed by an alternative technique
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

APPENDIX 2

AWN Consulting Screening Air Model Assessment Report dated 27-06-2013

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**SCREENING AIR MODELLING
ASSESSMENT OF AIR EMISSIONS
FROM KMK METALS RECYCLING
LTD FACILITY IN TULLAMORE,
CO. OFFALY**

Technical Report Prepared For

**Niall Nally
Nally Environmental
Drumcree
Collinstown
Mullingar, Co. Westmeath**

Technical Report Prepared By

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Our Reference

SM/13/6695AR01_4

Date Of Issue

27 June 2013

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EXECUTIVE SUMMARY

AWN Consulting was requested by Nally Environmental to carry out a screening air dispersion modelling study of emissions from a metal recycling facility in Tullamore, Co. Offaly.

The modelling has made the following assumptions:

- The stack height is 10.7m;
- Volume flows, exit temperature and exit velocity are based on information collected during stack emission monitoring carried out in 2013 after the installation of a new cyclone filter treatment unit.
- Process building of height 11.5m with a width and length of approximately 36m x 52m.
- The model is based on maximum operations for 24 hours per day, 365 days per year. In reality, the site will operate no more than 16 hours per day for 303 days per year. Thus, the results will over-estimate the long-term mean. The annual impact will thus be over-estimated by 45% in the current report.

Emissions from a metal recycling facility were assessed using the USEPA approved AERSCREEN air dispersion model. AERSCREEN is an approved regulatory screening model which uses a full set of meteorological conditions including all stability classes and wind speeds to find the maximum short-term impact. Thus AERSCREEN is designed to be conservative in its prediction of ambient pollutant concentrations.

The model results show that all predicted ambient concentrations of pollutants are well within their respective limit values at a stack height of 10.7m. Thus the impact of the metal recycling facility on ambient air quality in the region is not significant and will not lead to a breach of the ambient air quality standards.

Report Prepared By:



SEAN MCMAHON
Environmental Consultant

Report Checked By:



DR. EDWARD PORTER
Director, Air Quality

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1.0 INTRODUCTION

AWN Consulting was requested by Nally Environmental to carry out a screening air dispersion modelling study of emissions from KMK Metals Recycling Ltd. (EPA Waste Licence W0113-03) in Tullamore, Co. Offaly.

The AERSCREEN⁽¹⁾ air dispersion model was used to model particulates, chromium, lead, mercury, aluminium, arsenic, cadmium, copper, iron, nickel, thallium and zinc emissions from the A2-8 stack located within the facility. The dispersion model predicted the worst-case ambient ground level concentrations of these pollutants at distances from 50m – 1000m from the source.

The modelling has made the following assumptions:

- The stack height is 10.7m;
- Volume flows, exit temperature and exit velocity are based on information collected during stack emission monitoring carried out in 2013 after the installation of a new cyclone filter treatment unit;
- Process building of height 11.5m with a width and length of approximately 36m x 52m.
- The model is based on maximum operations for 24 hours per day, 365 days per year. In reality, the site will operate no more than 16 hours per day for 303 days per year. The annual impact will thus be over-estimated by 45% in the current report.

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2.0 AMBIENT AIR QUALITY STANDARDS

The ground level concentrations emanating from the metal recycling facility have been compared to Council Directive 2008/50/EC and other relevant air quality standards as shown in Table 1.

Table 1 Ambient Air Quality Standards

Parameter	Limit/Guideline	Council Directive 2008/50/EC ($\mu\text{g}/\text{m}^3$)	UK EAL ^{Note 1} ($\mu\text{g}/\text{m}^3$)	Council Directive 2004/107/EC ($\mu\text{g}/\text{m}^3$)
PM ₁₀	Annual Average	40.0		
Aluminum (Al)	Annual Average		20.0	
	Hourly Average		600.0	
Arsenic (As)	Annual Average			0.006
	Hourly Average		15.0	
Cadmium (Cd)	Annual Average			0.005
	Hourly Average		1.5	
Chromium (Cr)	Annual Average		0.1	
	Hourly Average		3.0	
Copper (Cu)	Annual Average		2.0	
	Hourly Average		60.0	
Iron (Fe)	Annual Average		10.0	
	Hourly Average		200.0	
Lead (Pb)	Annual Average	0.50		
Mercury (Hg)	Annual Average		0.25	
Nickel (Ni)	Annual Average			0.020
	Hourly Average		30.0	
Thallium (Tl)	Annual Average		1	
	Hourly Average		30	
Zinc (Zn)	Annual Average		50	
	Hourly Average		1000	

Note 1 EU Ambient Air Quality Standards have been applied to the relevant pollutants where available. In the absence of EU Ambient Air Quality Standards, ambient Environmental Assessment Levels (EALs) recommended by the UK DEFRA have been applied to the appropriate metals⁽²⁾.

3.0 MODELLING METHODOLOGY

3.1 AERSCREEN Model

Air emissions from the metal recycling facility were modelled using the USEPA approved AERSCREEN air dispersion model⁽¹⁾. AERSCREEN is an approved regulatory screening model which uses a full set of meteorological conditions including all stability classes and wind speeds to find the maximum short-term impact. Screening models are usually applied before a refined air quality model to determine if more detailed modelling is needed. Thus AERSCREEN is designed to be conservative in its prediction of ambient pollutant concentrations.

3.2 Model Input Parameters

The AERSCREEN model requires a number of site specific stack input parameters in order to carry out the dispersion modelling predictions. In this assessment the metal recycling facility comprises of one emission point (stack). The stack parameters have been obtained based on information collected from stack emission monitoring reports

These site specific stack input parameters include the following and are outlined in Table 2.

- Emission rate (g/sec) – as shown in Table 3;
- Stack height (m) – 10.7m;
- Stack diameter (m) – 0.8m;
- Stack exit velocity (m/s) – 13.97m/s;
- Stack gas temperature (K) – 295.5K.

The estimated process mass emissions (in g/s) are outlined in Table 3. Buildings can influence the passage of airflow over the emission point and draw plumes down towards the ground (termed building downwash). Information on building dimensions was also input into the model in order to calculate building downwash effects (see Table 4).

Table 2 Process Emission Details Based On Actual Monitoring Data

Stack Reference	Stack Height (m)	Exit Diameter (m)	Temp (K)	Volume Flow (Nm ³ /hr)	Exit Velocity (m/sec actual)
A2-8	10.7m	0.8	295.5	24,056	13.97

Table 3 Air Emission Rates From Metal Recycling Facility, Tullamore, Co. Offaly

Parameter	Emission Rate (g/s) ⁽¹⁾
Particulates	0.0027
Aluminium (Al)	0.00030
Arsenic (As)	0.000003
Cadmium (Cd)	0.000003
Chromium (Cr)	0.000021
Copper (Cu)	0.000014
Iron (Fe)	0.000021
Lead (Pb)	0.000094
Mercury (Hg)	0.000007
Nickel (Ni)	0.000021
Thallium (Tl)	0.000006
Zinc (Zn)	0.014

- (1) Based on the emission rate from the 2013 monitoring survey after the installation of a new cyclone filter treatment unit.
 (2) Non-detects can be reported at the limit of detection, at half the limit of detection or as zero. It is considered that reporting the results at the limit of detection is unnecessarily conservative whereas reporting the results as zero is not conservative. Thus, for the purposes of this assessment results have been reported at half the limit of detection.

Table 4 Building Information

Building Reference	Building Height (m)	Minimum Horizontal Building Diameter (m)	Maximum Horizontal Building Diameter (m)
D3X	11.5	36	52

4.0 MODELLING RESULTS

4.1 Unitised Emission Rates

The modelling results for a unitised release (i.e. 1 g/s) of emissions from the facility is shown in Figure 1. The maximum predicted 1-hour concentration is 2510 µg/m³, which peaks at a distance of 50m from the stack. Table 5 shows the variation in ambient concentration with averaging period (1-Hour, 3-Hour, 8-Hour, 24-Hour and Annual Mean).

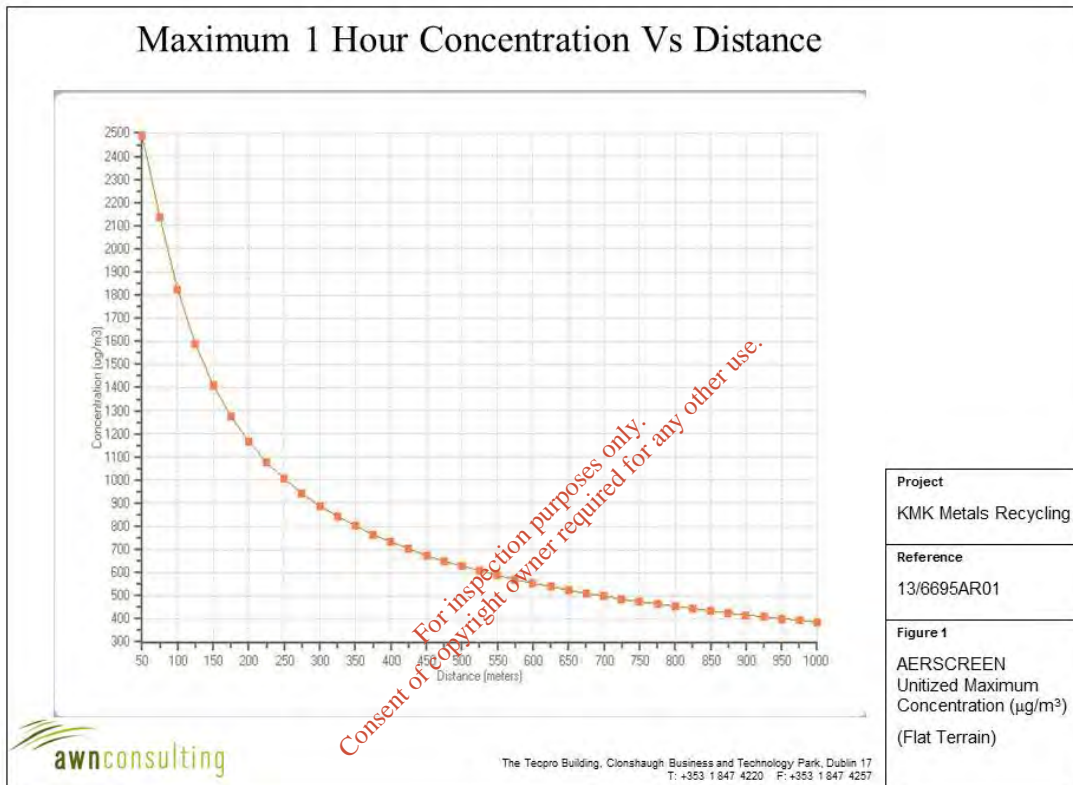


Table 5 Predicted Ground Level Concentrations of For 1-Hour, 3-Hour, 8-Hour, 24-Hour and Annual Mean Based On A 1 g/s Emission Rate

Parameter Emission Rate	Scaled 1-Hour Concentration (µg/m ³)	Scaled 3-Hour Concentration (µg/m ³)	Scaled 8-Hour Concentration (µg/m ³)	Scaled 24-Hour Concentration (µg/m ³)	Annual Concentration (µg/m ³)
1 g/s	2510	2510	2259	1506	251

4.2 Major Emissions Based On Mass Emission Rate

The modelling results for particulates, chromium, lead, mercury, aluminium, arsenic, cadmium, copper, iron, nickel, thallium and zinc releases from the metal recycling facility are detailed in Table 6 for the annual mean and in Table 7 for the short-term means. The maximum predicted concentration reaches 27% of the limit value (annual nickel concentration which peaks at 6.1 ng/m³ compared to a limit value of 20 ng/m³). All emissions are thus well below their respective limit values even when existing background concentrations are included in the assessment.

Table 6 Predicted Annual Average Ground Level Concentrations of Key Pollutants From The KMK Metal Recycling Facility

Parameter	Mass Emission (g/sec)	Background Concentration (µg/m ³) ^{Note 1}	Annual Average Process Contribution (µg/m ³)	Annual Average Predicted Environmental Concentration (µg/m ³)	Annual Average Predicted Environmental Concentration (µg/m ³) ^{Note 2}	Annual Ambient Air Quality Standard (µg/m ³)
Particulates	0.0027	20	0.67	20.7	11.4	40
Aluminium (Al)	0.00030	-	0.076	0.076	0.042	10
Arsenic (As)	0.000003	1.2 ng/m ³	0.67 ng/m ³	1.87 ng/m ³	1.03 ng/m ³	6 ng/m ³
Cadmium (Cd)	0.000003	0.2 ng/m ³	0.75 ng/m ³	0.95 ng/m ³	0.52 ng/m ³	5 ng/m ³
Chromium (Cr)	0.000021	-	0.0052	0.0052	0.0029	
Copper (Cu)	0.000014	-	0.0035	0.0035	0.0019	
Iron (Fe)	0.000094	-	0.024	0.024	0.013	
Lead (Pb)	0.000072	0.0015	0.0179	0.0033	0.0018	0.25
Mercury (Hg)	0.000007	-	0.0017	0.0017	0.00094	0.5
Nickel (Ni)	0.000021	0.7 ng/m ³	5.4 ng/m ³	6.1 ng/m ³	3.3 ng/m ³	20 ng/m ³
Thallium (Tl)	0.000006	-	0.0015	0.0015	0.00083	1
Zinc (Zn)	0.014	-	3.5	3.5	1.93	50

Note 1 Background concentrations taken from EPA Air Quality Monitoring Report 2011 (EPA, 2012)

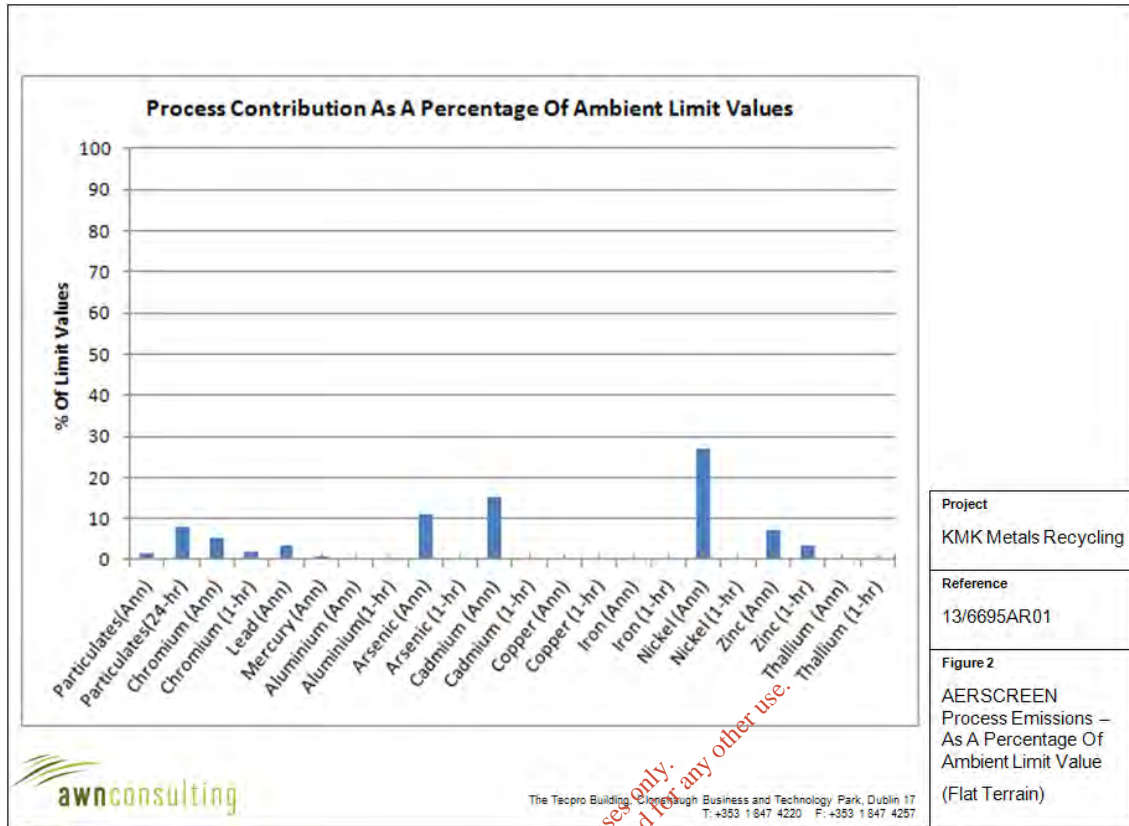
Note 2 Based on 16hrs per day, 303 days per year of operation.

Note 3 Ng/m³ refers to nanograms per metre cubed.

Table 7 Predicted Short-term Ambient Concentrations of Key Pollutants From The KMK Metal Recycling Facility

Parameter	Emission Concentration (g/sec)	Background Concentration (µg/m ³) ^{Note 1}	Hourly Process Contribution (µg/m ³)	Hourly Predicted Environmental Concentration (µg/m ³)	Hourly Ambient Air Quality Standard (µg/m ³)
Particulates	0.0027	35	4.0	39.0	50 (24-hr Mean)
Aluminum (Al)	0.00030	-	0.76	0.76	600
Arsenic (As)	0.000003	0.0024	0.0067	0.0091	15
Cadmium (Cd)	0.000003	0.0004	0.0075	0.0079	1.5
Chromium (Cr)	0.000021	-	0.052	0.052	3
Copper (Cu)	0.000014	-	0.035	0.035	60
Iron (Fe)	0.000094	-	0.24	0.24	200
Nickel (Ni)	0.000021	0.0014	0.054	0.055	30
Thallium	0.000006	-	0.015	0.015	30
Zinc (Zn)	0.014	-	35.2	35.2	1000

Note 1 Background concentrations taken from EPA Air Quality Monitoring Report 2011 (EPA, 2012)



5.0 CONCLUSION

Emissions from a metal recycling facility were assessed using the USEPA approved AERSCREEN air dispersion model. AERSCREEN is an approved regulatory screening model which uses a full set of meteorological conditions including all stability classes and wind speeds to find the maximum short-term impact. Thus AERSCREEN is designed to be conservative in its prediction of ambient pollutant concentrations.

The model results show that all predicted ambient concentrations of pollutants are well within their respective limit values at a stack height of 10.7m. Thus the impact of the metal recycling facility on ambient air quality in the region is not significant and will not lead to a breach of the ambient air quality standards.

REFERENCES

- (1) USEPA (2011) AERSCREEN Model User's Guide
- (2) UK DEFRA (2004) IPPC H1

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1.0 INTRODUCTION

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

2.0 SITE LOCATION AND DESCRIPTION

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

3.0 PROPOSED DEVELOPMENT

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

4.0 HUMAN BEINGS

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

Potential impacts to residences from the site regarding air quality, water run-off, visual impact, traffic and noise are discussed further in this non technical summary document.

5.0 TRAFFIC

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

6.0 CLIMATE AND AIR QUALITY

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

The following revised details are also included in this section;

In terms of measuring air emissions and assessment of impacts to air from KMK, air emissions monitoring was conducted at KMK on the stack A2-8 by Glenside Environmental (independent service provider) on the 21st May 2013 post installation of the recent cyclone abatement system. The cyclone functions by screening out the larger dust particles from the incoming air with the air containing fine dust particles being blown out for further treatment using the existing bag house filter system. This monitoring event is the most appropriate indication of the actual emissions from the stack at A2-8 by virtue of all abatement equipment being installed and commissioned at this juncture. The subsequent monitoring results confirm that KMK is operating well within the existing licence threshold limits. In order to assess the impact of KMK on the relevant ambient air quality standards, a Screening Model assessment was conducted by AWN Consulting (independent service provider). The Screening Model assessment concluded also that '*...the impact of the metal recycling facility on ambient air quality in the region is not significant and will not lead to a breach of the ambient air quality standards*'. Hence the proposed waste licence review application by KMK under consideration by the EPA will not contravene the relevant air quality standards.

7.0 NOISE

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

8.0 SOILS AND GEOLOGY

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

9.0 WATER

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

10.0 LANDSCAPE AND VISUAL IMPACT

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

11.0 CULTURAL HERITAGE

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

12.0 FLORA AND FAUNA

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

13.0 INTERACTION OF THE FOREGOING

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

14.0 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Please refer to the original EIS Non Technical Summary dated August 2012 and the revised EIS Non Technical Summary dated May 2013, both submitted previously to the EPA in relation to waste licence ref: W0113-04 for all details.

ATTACHMENT A
NON TECHNICAL SUMMARY
REVISED 01-07-2013 FOR W0113-04

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General Description of the proposed development:

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

12. (1) Subject to sub-article (2), in the case of an application for a waste licence, the application shall -

- a) **Give the name, address and, where applicable, any telephone number and telefax number of the applicant (and, if different, the operator of the facility concerned), the address to which correspondence relating to the application should be sent and, if the applicant or operator is a body corporate, the address of its registered office or principal office**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- b) **Give the name of the planning authority in whose functional area the relevant activity is or will be carried on**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- c) **In the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- d) **Give the location or postal address (including, where appropriate, the name of the townland or townlands) and the National Grid reference of the facility or premises to which the application relates**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- e) **Describe the nature of the facility or premises concerned, including the proposed capacity of the facility or premises and, in the case of an application in respect of the landfill of waste, the requirements specified in Annex 1 of the Landfill Directive**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- f) **Specify the class or classes of activity concerned, in accordance with the Third and Fourth Schedules of the Act and, in the case of an application in respect of**

the landfill of waste, specify the class of landfill in accordance with Article 4 of the Landfill Directive.

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- g) Specify, by reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000, the quantity and nature of the waste or wastes which will be treated, recovered or disposed of**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- h) Specify the raw and ancillary materials, substances, preparations, fuels and energy which will be utilised in or produced by the activity**

There will be no changes or additions to the types of raw materials, energy and fuels used at the revised site.

- i) Describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures for the activity**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- j) Provide information for the purpose of enabling the Agency to make a determination in relation to the matters specified in paragraphs (a) to (i) of section 40(4) of the Act**

- a. Environmental emissions (noise, dust, surface water, groundwater, point source stack emission) from the operation of this facility by KMK are monitored as part of the existing waste licence W0113-03 (including the Technical Amendment granted on 25th June 2012). A separate Air Screening Model Assessment was conducted by an independent service provider using the most up-to-date emissions data from the stack point A2-8 and this report concluded that the air emissions from KMK's stack will not contravene the relevant ambient air quality standards.
- b. Environmental pollution will not occur for the reasons previously outlined in the revised non technical summary dated 07-05-2013
- c. The Best Available Techniques (BAT) will be used to prevent, eliminate and control emissions from the activity concerned. The activity is consistent with the objectives of the relevant waste management plan.
- d. KMK are fit and proper to hold a waste licence as defined by the EPA and an existing waste license is in place at the site ref: W0113-03.
- e. In the event of decommissioning the facility, KMK will follow the procedures as defined under the granted licence and specified in the Decommissioning Plan which has been submitted to the Agency as part of compliance with license W0113-03. A financial bond will be maintained to ensure funds will be available to carry out such works as are needed.

- f. Vehicles and machinery will be regularly maintained to prevent unnecessary wear and tear that can lead to increased energy consumption.
- g. Noise emissions from the site are not deemed to have a nuisance effect on the surrounding environment.
- h. In terms of accident prevention, please refer to the revised non technical summary dated 07-05-2013.

(k) Give particulars of the source, location, nature, composition, quantity, level and rate of emissions arising from the activity and, where relevant, the period or periods during which such emissions are made or are to be made,

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

(l) Give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than that into which the emissions are, or are to be, made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit or abate such emissions,

Stack emissions, ambient dust, noise, surface water and groundwater monitoring is carried out at the site as part of the existing waste licence ref: W0113-03.

The following revised details are also included in this section;

In relation to the existing stack emission point A2-8, this is controlled effectively using a cyclone abatement plant which functions by screening out the larger dust particles from the incoming air with the air containing fine dust particles being blown out for further treatment using the existing bag house filter system. In terms of measuring air emissions and assessment of impacts to air from KMK, the most recent air emissions monitoring was conducted at KMK on the stack A2-8 by Glenside Environmental (independent service provider) on the 21st May 2013 post installation of the recent cyclone abatement system. This monitoring event is the most appropriate indication of the actual emissions from the stack at A2-8 by virtue of all abatement equipment being installed and commissioned at this juncture. The subsequent monitoring results confirm that KMK is operating well within the existing licence threshold limits. In order to assess the impact of KMK on the relevant ambient air quality standards, a Screening Model assessment was conducted by Awn Consulting (independent service provider). The Screening Model assessment concluded also that '*...the impact of the metal recycling facility on ambient air quality in the region is not significant and will not lead to a breach of the ambient air quality standards*'. Hence the proposed waste licence review application by KMK under consideration by the EPA will not contravene the relevant air quality standards

There are no further revisions to this section.

(m) Identify monitoring and sampling points and indicate proposed arrangements for the monitoring of emissions and the environmental consequences of any such emissions,

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- (n) **Describe any proposed arrangements for the prevention, minimisation and recovery of waste arising from the activity concerned,**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- (o) **Describe any proposed arrangements for the off-site treatment or disposal of solid or liquid wastes,**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- (p) **Describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions and minimise the impact on the environment of any such emissions**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- (q) **Describe the proposed measures for the closure, restoration, remediation or aftercare of the facility concerned, after the cessation of the activity in question,**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- (r) **In the case of an application in respect of the land-filling of waste, give particulars of -**

No waste disposal will be occurring on site.

- (i) **Such financial provision as is proposed to be made by the applicant, having regard to the provisions of Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and section 53(1) of the Act, and**

No disposal of waste is to occur on site.

- (ii) **Such charges as are proposed or made, having regard to the requirements of section 53A of the Act,**

No disposal of waste is to occur on site.

- (s) **State whether the activity is for the purposes of an establishment to which the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000) apply,**

There are no revisions to this section. Please refer to the previous revised non technical summary dated 07-05-2013 for further details.

- (t) **In the case of an activity which gives rise or could give rise to an emission into an aquifer containing the List I and II substances specified in the Annex to Council Directive 80/68/EEC of 17 December 1979, describe the existing or proposed arrangements necessary to give effect to Articles 3, 4, 5, 6, 7, 8, 9 and 10 of the aforementioned Council Directive**

No list I or list II substances are to be accepted or treated on site.