Chiltern District Council South Bucks District Council

H418/1/21 (Ref: 08/00022/B)

Pollution Prevention & Control Act 1999 – Section 2
The Environmental Permitting (England and Wales) Regulations 2016.
Local Air Pollution Prevention and Control (LAPPC)

The Permit shall be subject to replacement, variation or amendment as may be considered appropriate by Chiltern & South Bucks District Councils, at any time, according to the provisions of Regulation 17(1).

PERMIT TO OPERATE AN INSTALLATION (PART B)

Previous Variation Date: 12th August 2016
Current Variation Date: 6th July 2017

New Permit Ref: H418/1/22/VAR

Operator Name: Draycast Foundries Limited, Bellingdon Road, Chesham HP5 2NR (National Grid Reference: SP 958024)

Registered Office: Draycast Foundries Limited, Bellingdon Road, Chesham HP5 2NR (National Grid Reference: SP 958024)

Description of Permitted Installation

The named company is permitted by Chiltern & South Bucks District Councils' *(hereinafter referred to as "the Council")* to operate a prescribed process, namely the operation of a foundry process, producing aluminum and copper based castings with an overall melting capacity of less than 20 tonnes per day, within the boundary outlined in the attached plan **Ref:08/00022/B-1.**

In general terms, foundry operations will include operations carried out in conjunction with the non-ferrous metal processes include mould making, casting processes, knock out, metal removal (specifically fettling), polishing, finishing and foundry sand reclamation operations.

Plant Layout - Key

Stacks, Vents From Within the Building

A	Wall vent from melting shop - fan assisted
B	Roof vents from melting shop - fan assisted
C	Roof vents from moulding/core shop
D	Exhaust from core oven P14
E	Exhausts from cold set machines P16
F	Exhaust from shell core machines S1
G	Exhaust from cold set core machine P12, P17
LEV 5	DORMANT – Was used by old shotblast machine
LEV 6	Cyclone from knock out grid P6
LEV 9	Bag filter from knock out grid P7
LEV11	Bag filter from fettling booths F19, F20
LEV12	Bag Filter for linishers and grinders F8, F9, F11, F12, F13
LEV13	Integrated extractor with new Pangborn Shotblast – Vents internally
LEV20	Inductotherm Furnace Fume Ring Extractor

Machinery

M1,5,6	Ramsell Naber electric furnaces (M6 Removed 2016)
M2,3,4	Morganite Recuperative Gas Furnaces (Replacing 1 Naber electric, 2 Ramsell Gas)
M7	Morganite gas furnace (Removed 2016)
M8	Inductotherm 125 VIP furnace
M9	Inductoherm 250 VIP furnace
P1,2,3,4	BMM pin lift moulding machines
P5	BMM rollover moulding machine
P6	Kemco sand reclamation system
P7	Award sand reclamation system

P8	Award ribbon flow mixer
P9,10,11	ISS ribbon flow mixers
P12,16	ISS cold set core machines
P14	Marr Therm Oven
P15	Facing Sand Mill
P17	BZV cold set core machine (incorporating ISS ribbon mixer P9)
P18	Omega Ribbon Flow Mixer & Moulding Loop
S1	Steloy shell core machine (Relocated 2016)
S3	Steloy shell core machine (Removed 2016)
F1,2,3	Workpoint Fettling Benches (Replace Thorne Booths)
F4	Vixen shotblast cabinet (Relocated to building 2)
F5	Pangborn shotblast cabinet – New Model installed May 2003
F6	Friggi bandsaw
F12	Cutmaster double grinding wheel
F8	Metabo Linisher
F9,13	Diamant linishers
F11	Beacon pedestal grinder
F14	Finetec 213 Linisher (Removed 2016)
F17	Workpoint Fettling Bench
F18	Workpoint Fettling Bench
F19,F20	Generic Fettling Booths
C1	Compair RA75 Compressor
C2	Gardner Denver Compressor
C3	Hi Line Dryer

Workpoint fettling benches use integral extraction and do not vent externally to building.

Key (Changes/Removals) - Additions (NEW/REPLACEMENT PLANT)

Components A - Furnaces

The melting of clean aluminium - and copper-based metal alloys containing less than fifty per cent by weight of tin, and using metallic sodium as a metal treatment, using the following furnaces

Map Location	Quantity	Make	Description
M1,M5	2	Ramsell – Naber	Electric Resistance Bale-out furnaces with a melting capacity of 165 kilogrammes for each furnace
M2, M3, M4	3	Morganite	Gas Bale-out furnace with a melting capacity of 250 kilogrammes for each furnace
M8	1	Inductotherm	Electric Induction Lift-out furnace with a melting capacity of 75 kilogrammes
M9	1	Inductotherm	Electric Induction Lift-out furnace with a melting capacity of 150 Kilogrammes

Components B – Moulding, Cutting, Grinding

The related foundry processes of the manufacture and recovery of moulds, the reclamation of sand, fettling, grinding and shot-blasting (but excluding thermal sand reclamation and investment foundry coating) using

Map Location	Quantity	Make	Description
P1,2,3,4	4	BMM	Pin-lift
P5	1	BMM	Roll-over moulding machines
P6,P7	2	1 Award/ 1 Kemco	Knock-out vibrating grids and associated sand reclamation and dust extraction plant
P8, P9,10,11	4	1 Award 3 ISS	Ribbon flow sand mixers
P12,13,16	3	1 Omega 2 ISS	Cold Set Core machine

S1	**1**	**Steloy**	**Shell Core machines**
P14	**1**	**Marr Therm**	**Core drying oven**
F6	**1**	**Friggi**	**Bandsaw**
F8,9,13	**3**	**Diamant 2** **Metabo 1**	**Upstand Belt finishing machines (linishers)**
F11	**1**	**Beacon**	**double ended pedestal grinder**
F1,2,3, 17 18	**5**	**Workpaint**	**down-draught fettling booths**
F5	**1**	**Pangborn**	**Shotblast cabinet (installed May 2003)**
F4	**1**	**Vixen**	**Shotblast cabinet**
F12	**1**	**Cutmaster**	**Double Grinding Wheel**
P15	**1**	**na**	**Facing Sand Mill**
P17	**1**	**BZV**	**Cold Set Core Machine (incorporating ISS Ribbon Mixer) P9**

(Some venting into the arrestment plant detailed in Component D).

Components C - Storage

The storage on site of foundry sand in:

External	**2**	**NA**	**external sand-storage silos, displaced air from which vents into proprieta bag filters each fitted with a visual and audible alarm (and alarm test facilities) giving warning that the silo is almost full, and which in t deliver sand to three of internal silos from which sand is drawn for use when necessary**

Component D – Discharge Points

Local exhaust ventilation discharging into:

LEV6	**1**	**NA**	**Cyclone grit arrester; serving sand reclamation plant at ground level Knock out grid,**
LEV 9	**1**	**NA**	**Cotton bag filter; serving sand reclamation plant at cabinet enclosed Knock out grid,**
LEV 11	**1**	**NA**	**Cotton bag filter; serving fettling booths,**
LEV 12	**1**	**NA**	**Bag Filter for linishers and grinders**
LEV 13	**1**	**NA**	**Integrated extractor with new Pangborn Shotblast (Vents internally)**
LEV 20	**1**	**NA**	**Furnace Fume Extractor (To control lead emissions)**
LEV 5	**NOT IN USE**	**NA**	**Cotton bag filter; serving shot blast cabinets used by old shotblast machine**

Component E

All operations listed in component A. and B. above, being carried out in the factory building shown on the attached site plan marked Document A attached to and forming part of this permit.

Conditions of this permit are drawn having taken account of the core regulatory principles outlined in the Pollution Prevention and Control (England & Wales) Regulations 2000, (as amended) with subject compliance reference to the following Department for Environment, Food & Rural Affairs (DEFRA) process guidance notes:
PG2/4 (13) – Iron, steel and non-ferrous metal foundry process (July 2013),
PG2/6 (13) – Processes melting and producing aluminum and its alloys (July 2013)
PG 2/8 (13) – Copper and Copper Alloy processes (July 2013)

Emission Requirements and Standards

Conditions

1. All emissions to air from the process, other than steam or condensed water vapour, shall be free from droplets and from persistent mist and persistent fume.

2. Emissions from the process shall be free from offensive odour outside the process site boundary as perceived by the local authority enforcing officer.

3. Emissions in normal operation from combustion processes (excluding casting fume) shall be free from visible smoke and in any case shall not exceed Ringlemann shade 1 as described in BS 2742:1969. (Notes on the Ringlemann smoke charts are given in British Standard BS 2742 : 1969)
4. The following emission concentration limits, expressed at reference conditions, 273K, 101.3 kPa, without correction for water vapour content, shall apply to releases from contained sources other than emissions from casting operations, or to emissions during casting solidification and cooling, until the mould reaches the knock-out

Emission	Concentration (milligrammes/metre$^{3)}$
Total particulate matter (including handling of raw materials and residues)	50 (mg/m^3)
Copper and its compounds (as copper)	20 mg/m^3
Lead and its compounds (as lead)	2 mg/m^3
Nickel and its compounds (as nickel)	10 mg/m^3
Tin and its compounds (as tin)	10 mg/m^3

The following emission concentration limits shall apply to releases from contained sources expressed as 15-minute mean concentrations:

Emission	Concentration
Chlorine	5mg/m3
Fluoride (as hydrogen fluoride)	5mg/m3

Monitoring, sampling and measurement of emissions

5. When deliveries of sand are being made, the operator shall ensure that the silo-filling operation is continuously visually observed by the delivery driver and periodically over each delivery, visually observed by an employee of the operator instructed to cease immediately the transfer of sand into the silo in the event that overfilling is imminent.

6. Following demonstrable compliance from previous emissions testing results, the requirement for emissions testing from roof vents shall be undertaken, at a frequency to be agreed with the Council, as and when required.

7. Where emission limit values are consistently met without the use of abatement equipment, the monitoring requirement for those pollutants shall be undertaken using the methodology advised in Appendix 1 and shall be presented by the Operator for approval by the Principal Environmental Protection Officer, on request.

8. The Senior Environmental Protection Officer shall be notified not less than seven days of the provisional time and date the monitoring exercise is to be carried out; and at the same time, the methods to be used for the sampling and measurement of the emissions, and

9. The results of any monitoring exercise undertaken by Operator shall be sent to the Senior Environmental Protection Officer within eight weeks of the completion of sampling.

10. The results of all periodic monitoring and inspections (including, but not exclusively, all emission control equipment situated outside the process building and associated with local exhaust ventilation) shall be recorded in a log-book. The log-book shall be retained for a minimum of four years and made available for examination by an authorised officer of the Council without notice. Adverse results shall be investigated immediately and their cause shall in all cases be identified and appropriate corrective action taken. Details of the adverse results and the subsequent investigations into them and the corrective actions taken shall in all cases be recorded in the log-book.

Materials handling

11. The receipt, handling and storage of materials (inside and outside), likely to generate particulate matter shall be carried out in such a way that emissions of particulate matter to the air are minimised.

12. Any spillages or accumulations of materials likely to generate particulate matter occurring at the premises shall be cleared up promptly and the substances cleared up, stored and handled so as to prevent emissions to the air prior to dispatch of the said material off the premises. Spillages and accumulations described in this Condition shall be cleared up in such a manner that they do not contribute to emissions to the air.

13. Any malfunction leading to abnormal emissions shall be dealt with promptly and process operations adjusted as necessary to minimise emissions to the air until normal operations can be restored. All such malfunctions shall be recorded in the log-book required elsewhere in this Permit. Details which shall be recorded include the nature of the malfunction, the plant or equipment involved and the remedial action taken to rectify the malfunction. The record shall indicate the name of the person making the record. If the malfunction is likely to have an effect on any neighbouring premises the Senior Strategic Environment Officer shall be notified without delay by the most expeditious means available. If the malfunction involves the catastrophic failure of arrestment plant the Senior Strategic Environment Officer shall be notified without delay by the most expeditious means available regardless of any other considerations.

General

14. Staff at all levels should receive the necessary training and instruction in their duties relating to control of the process and emissions to air.

15. The Core drying oven, gas fired duty and standby furnaces and the Steloy shell core machine shall be heated by no fuel other than natural gas complying with the requirements of the Gas Safety (Management) Regulations 1996 or successor Regulations.

16. Foundry and customer returns to the melting shop shall at all times be free from lubricant, oil and paint and other applied coatings.

Time related conditions

17. All conditions shall be effective on issue of this Permit. Advances in legislation or release of new PG notes may result in the amendment of this Permit

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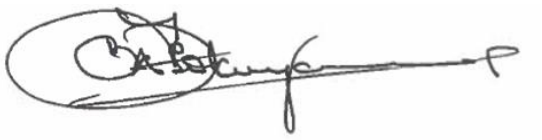
Name: Olu Sokoya

Title: Senior Environmental Protection Officer



Signed:

Date: 17th July 2017

Name: Tracy Farrell

Title: Principal Environmental Protection Officer

Signed Tracy Farrell

Date: 17th July 2017

Strategic Environment Unit
Healthy Communities
Chiltern & South Bucks District Council
King George V House
King George V Road
Amersham,
Bucks HP6 5AW
(Address to which communications should be sent)

APPENDIX 1

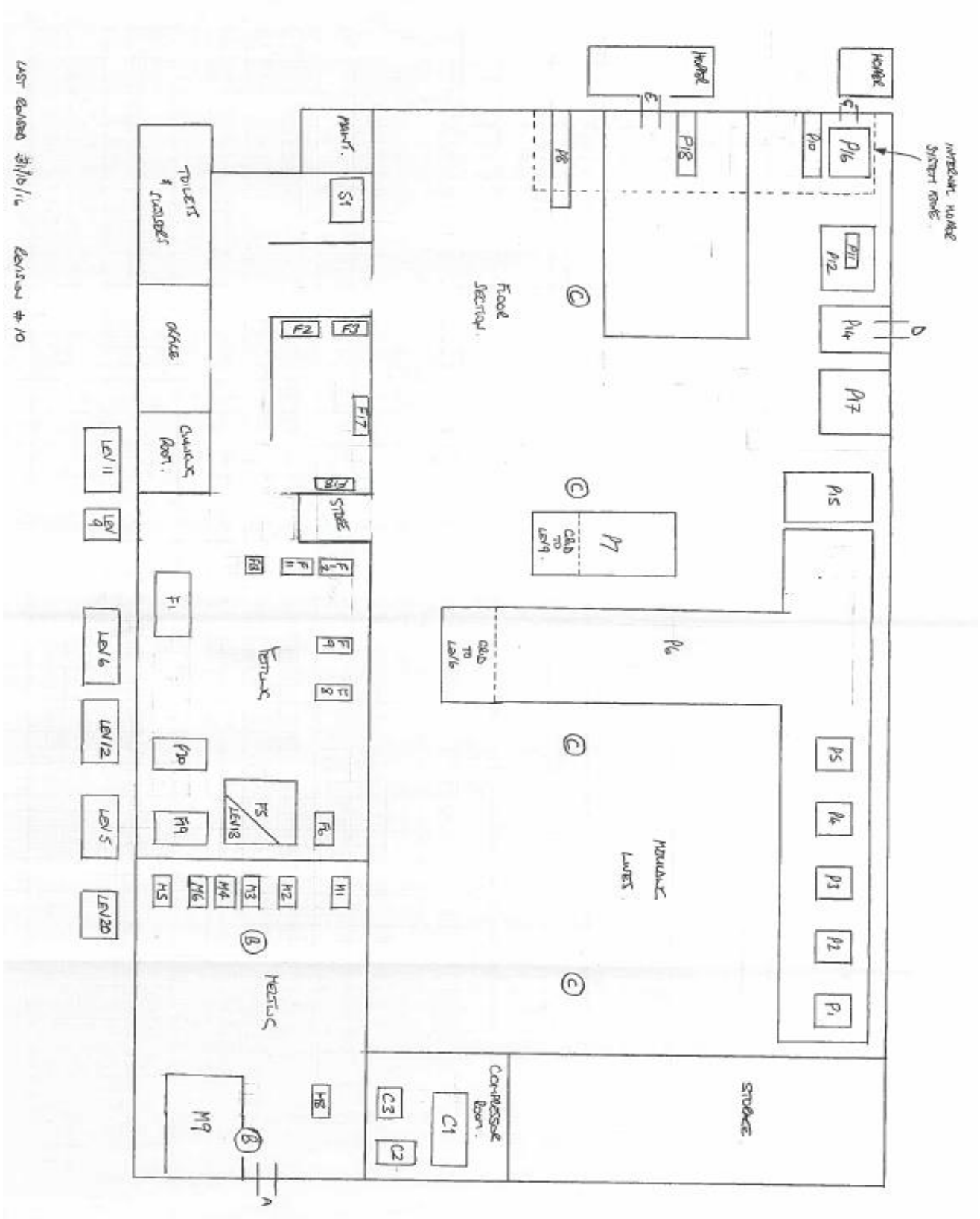
Emission Sources and Limits

Substance	Source	Limit Value	Type of Monitoring	Monitoring frequency
Total particulate matter	Furnace charging, fluxing, melting, pouring and casti	20mg/m3	Manual extractive test. Monitoring to comply with I IO 12141: 2002 or BS EN 13284: Part 1	As required
Fluoride	Fluxing	5 mg/m3	Manual Extractive test	As required
All emissions to ai	All emissions to air	Free from persistent visible emissions	Visual assessment	At least daily
All emissions to ai	All emissions to air		Olfactory assessment	At least daily

SITE MAP (EXTERNAL)

Map Ref: 08/00022/B- 1 National Grid Reference: SP 958024

Plan Ref: 08/00022/B-1 (INTERNAL)



PERMIT EXPLANATORY NOTES

1. You should note that Regulation 12(10) of the Pollution Prevention and Control Regulations 2000 provides that, in relation to any aspects of the process not regulated by conditions 1 - 24, the best available techniques (BAT) shall be used.

2. Regulation 3 (1) of the Pollution Prevention and Control Regulations 2000 describes "BAT" as the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent, and where that is not practical, generally to reduce emissions and the impact on the environment as a whole.

   (a) "available techniques" means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator;

   (b) "best" means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole;

   (c) "techniques" includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

   Schedule 2 of the Regulations shall have effect in relation to the determination of best available techniques.

3. Regulation 11 sets out the general principles of operation of scheduled installations The general principles are that installations and mobile plant should be operated in such a way that -

   all the appropriate preventative measures are taken against pollution, in particular through application of the best available techniques; and

   - no significant pollution is caused.
   - In addition, Part A installations should be operated in such a way that –
   - waste production is avoided in accordance with Council Directive 75/442/EEC on waste; and where waste is produced, it is recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;
   - energy is used efficiently;
   - the necessary measures are taken to prevent accidents and limit their consequences,
   - and that, upon the definitive cessation of activities, the necessary measures should be taken to avoid any pollution risk and to return the site of the installation or mobile plant to a satisfactory state.

4. A competent person is one who is able to follow the procedures for safe operation for petrol unloading operations laid down in the petroleum licence conditions and in the Carriage of Dangerous Goods by Road Regulations (1996, SI2095).

   A competent person shall have received sufficient theoretical training and practical instruction in order to enable them to undertake their duties in respect of petrol unloading operations and using (or supervising the use of) and maintaining vapour balance controls, and actions to be taken in the event of a vapour leak.

5. This permit is issued under Regulation 10 of the Pollution Prevention and Control Regulations 2000. The responsibilities you have under legislation for Health, Safety and Welfare in the workplace remain in force.

6. This permit does not detract from any other statutory requirements such as any need to obtain planning permission, building regulations approval, waste disposal licence or discharge consent from the Environment Agency.

7. Relevant or substantial changes to a scheduled installation require notification in writing and may require variation in the conditions of a Permit.

8. The annual fee or the first instalment for the time being as prescribed by the Secretary of State shall be paid in advance, on or before 1st April each year, except for the first pro-rata subsistence fee from the current year, which shall be paid within 28 days of the date of invoice by the Council

9. Vapour leak means any release of vapour otherwise occurring than during a controlled pressure release through the pressure vacuum release valve in the instance of potentially hazardous pressurisation.

APPEAL AGAINST PERMIT CONDITIONS

Any person who is aggrieved by the conditions attached to a permit can appeal to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be received by the Secretary of State no later than 6 months from the date of the decision (the date on the bottom of the permit).

Appeals relating to installations in England should be received by the Secretary of State for Environment, Food & Rural Affairs. The address is as follows;

The Planning Inspectorate
Environment Team, Major and Specialist casework
Room 4/04 Kite Wing
Temple Quay House
2 The Square
Temple Quay
Bristol, BS1 PN

The appeal must be in the form of a written notice or letter stating that the person wishes to appeal and listing the condition(s) which is/are being appealed against. The following five items must be included;

a) A statement of the ground of appeal;
b) A copy of any relevant application;
c) A copy of any relevant permit;
d) A copy of any relevant correspondence between the person making the appeal ("the appellant") and the Council;
e) A statement indicating whether the appellant wishes the appeal to be dealt with
    - by a hearing attended by both parties and conducted by an inspector appointed by the Secretary of State; or
    - by both parties sending the Secretary of State written statements of their case (and having the opportunity to comment upon one another's statements).

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this has been done.

Please Note

- An appeal brought under Regulation 31 (1) (b) and Schedule 6, in relation to conditions in a permit will not suspend the effect of the conditions appealed against; the conditions must still be complied with.
- In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority to either vary any of these conditions or to add new conditions.

You will normally be expected to pay your own expenses during an appeal. You will be liable for prosecution if you fail to comply with the conditions of this permit. If found guilty, the maximum penalty for each offence if prosecuted in a Magistrates Court is £50,000 and/or 6 months imprisonment. In a Crown Court it is an unlimited fine and/or 5 years imprisonment. Our enforcement of your permit will be in accordance with the Regulators" Compliance Code

References

1. PG2/4 (13) – Iron, steel and non-ferrous metal foundry process (July 2013), PG2/6 (13) – Processes melting and producing aluminum and its alloys (July 2013) and PG 2/8 (13) – Copper and Copper Alloy processes (July 2013) www.defra.gov.uk/environment/airquality/lapc/pgnotes/default.htm.

2. The Secretary of States Guidance PB8094 "General Guidance Manual on Policy and Procedures for A2 and B Installations March 2000'. DEFRA. (ISBN 0-85521-028-1)

3. The Pollution Prevention and Control regulations 2000.

4. The Environmental Permitting (England & Wales) Regulations 2016