

PERMIT 009



**POLLUTION PREVENTION AND CONTROL ACT 1999
 ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2010**

PERMIT OF PROCESS

THIS IS TO CERTIFY THAT **Loughborough Crematorium,**

Operated by: **Dignity Caring Funerals Ltd, Leicester Road, Loughborough**

(National Grid Ref:: SK 545182 and shown in Appendix I which forms part of this permit)

has been duly permitted in accordance with Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010 subject to the conditions outlined in this document.

Name of Operator: Dignity Caring Funerals Ltd

**Registered Office 4 King Edwards Court, Sutton Coldfield,
West Midlands B73 6AP**

This Permit shall apply only to the installation detailed above. This Permit, consisting of thirteen pages, shall be subject to replacement, variation or amendment, as may be considered appropriate by Charnwood Borough Council at any time, according to provisions of Regulations, 18, 20, and 34 of the Environmental Permitting (England and Wales) Regulations 2010.

The conditions contained herein shall apply from the date of the Permit unless otherwise stated.

Signed on behalf of Charnwood Borough Council

.....
 Ann Green. Specialties Environmental Health Officer
 (the delegated officer for the purpose)

Dated 21st March 2011

Counter-signed.....

Directorate of Strategic Housing and Health, Environmental Protection, Southfields, Southfield Road
Loughborough LE11 2TX

PERMIT 009**Introductory note**

This introductory note does not form a part of the permit

The following Permit is issued under Regulation 13(1) of the Pollution Prevention and Control (England and Wales) Regulations 2010 (S.I 2007/3538), as amended, (“the EP Regulations”) to operate an installation carrying out one or more of the activities listed in Part 2 of Schedule I of the EP Regulations, to the extent authorised by the Permit:

Section 5.1 – Incineration and co-incineration of waste
"Any activity involving the cremation of human remains”.

Status Log

<u>Detail</u>	<u>Date</u>	<u>Comment</u>
Permit Issued	20 Oct 1992	
Permit Variations Issued	23 July 1998 29 June 2006 13 August 2008 1 st March 2010	Consolidated Permits Issued Consolidated Permits Issued Consolidated Permits Issued Consolidated Permits Issued
Variation Notice	30 April 2010	Additional condition added
Variation Notice	21 March 2011	Front Sheet and revised notes

Origins of the conditions contained in the permit

The Secretary of State has issued various guidance notes to local authorities to assist with determining those conditions which represent ‘best available technique’ in the different circumstances which apply to each installation. The conditions within this permit have largely been derived from the following guidance note;

PG 5/2 (04) Guidance for Crematoria

Process Description

The purpose of the plant is to carry out the cremation of human remains, together with the coffin.

The cremators are located in the Loughborough Crematorium, Leicester Road, Loughborough, which is shown on Appendix 1/009

There are two Joule cremators located in the cremation room.

PERMIT 009

Plant Operation

The coffins are rested on the catafalque in the Chapel of Rest. After the service the coffin is moved to the bier trolley, which transports the coffin to the cremator. The coffin is loaded into the cremator through the charge door when a sufficient temperature has been reached.

The Crematorium handles approximately 30 cremations per week. Following completion of the cremation cycle the remains are raked out and stored in a covered container.

Principle Emissions

Emission Point		Emissions			
I.	Stack containing the two flues from both cremators	Particulate	carbon	monoxide,	hydrogen chloride, organic compounds.

End of Introductory Note.

PERMIT 009

The above named company is permitted to operate a crematorium activity subject to compliance with the following conditions:

Permit ConditionsStandard Conditions

1. If the operator proposes to make a change in operation of the installation he shall, at least 14 days before making the change, notify Charnwood Borough Council in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change of operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.
 - 1a. The operator shall send Charnwood Borough Council, by no later than 1 June 2010 and 1 April in each year thereafter, a certificate from the CAMEO organisation or appropriate evidence from a comparable audited burden sharing arrangement or scheme which specifies:-
 - a) The total number of cremations in the past 12 months;
 - b) The number of cremations undertaken in cremators fitted with operational mercury abatement equipment in the previous 12 month ; or
 - c) The number of cremations undertaken in the previous 12 months and the proportion of those subjects to burden sharing arrangements under which money is paid for the benefit of abated crematoria ; or
 - d) In cases where mercury abatement is fitted but fewer than 50% of cremations at the installation were undertaken in cremators fitted with it in the previous 12 months, the relevant information in both b) and c).
2. The best available techniques shall be used to prevent or, where that is not practicable, reduce emissions from the (installation) (mobile plant) which is not regulated by any other condition of this permit.

Emission Limits, monitoring and other provisions

3. Table I contains the specified emission concentration limits, no results obtained from non-continuous monitoring shall exceed the following emission concentration limits:

PERMIT 009

Table I

Pollutant	Concentration	Mass Limit	Sampling Frequency
Hydrogen chloride		300g/h	Annual
Total particle matter	80mg/m ³ (averaged over 60 minutes for 95% of cremations)		Continuous
Carbon monoxide	100mg/m ³ (averaged over the first hour for 95% of cremations)		Continuous
Organic compounds		30g/h	Annual
Carbon monoxide	200mg/m ³ (averaged over the first hour for all cremations)		Annual

All pollutant concentrations shall be expressed at reference conditions; 273 K, 101.3 kPa and 11% oxygen, dry gas.

4. Where continuous monitoring is undertaken:
- No more than 5% of all 60-minute mean emission concentrations shall exceed the specified emission concentration limits, and
 - No-60 minute mean emission concentration shall exceed twice the specified emission concentration limits.

Compliance with this requirement shall be demonstrated on a weekly basis.

5. The temperature of combustion gases at the last admission of secondary air into and at the exit from the secondary combustion zone must be continuously monitored and recorded. An alarm shall be triggered when the temperature in the secondary combustion zone falls below 1123°K (850°C).
6. An interlock shall prevent the cremator loading when clauses 5 or 32 are not met.
7. In the event of the crematoria plant being unable to maintain compliance with clauses 5 and 32 the following emission limit will be required to be achieved: -

Pollutant	Concentration	Mass Limit	Sampling Frequency
Polychlorinated dibenzo-p-dioxin and furan (PCDD/F)	4.5 micrograms as ITEQ per 3 cremations	1 monogram/m ³ as ITEQ	When required by the local authority inspector.

PERMIT 009

8. The compliance with clause 32 relating to the residence time of gases in the secondary combustion zone shall be demonstrated by measurement and calculation of the volume flow rate of gases through the cremators when any new cremators are commissioned.

Monitoring, investigations and recording

9. As part of proper supervision the operator shall monitor emissions and make tests and inspections of the process. All sampling and tests required must be carried out when the cremator is operated at its usual operating capacity. The emissions which are required to be sampled are given in condition 3 above, together with their sampling frequency and suggested sampling technique.
10. The oxygen concentration at the outlet from the secondary combustion zone and at the point of continuous measurement of parameters referred to in condition 3 shall be continuously monitored.
11. Visual and olfactory assessments of emissions emanating from the top of the chimney stack shall be made at least once a day from within the crematorium grounds, in particular to confirm continued operation of the particulate matter continuous monitoring instrument. Remedial action must be taken immediately in the case of abnormal emissions.
12. A summary of continued monitoring results shall be forwarded to the local authority at least every six months. This information shall include the information outlined in paragraph 5.9 of the Secretary of State's Process Guidance Note for Crematoria.

This information shall be set out in a manner the same as or equivalent to the example report in Section 10 of the PG Note.

Information required by regulator

13. The results of all monitoring and inspections (including continuous monitor charts and records) shall be recorded and retained at the crematorium for a minimum of two years and made available by the operator for examination by the local authority inspector. The operator will investigate any adverse results and take any corrective action immediately, and the action taken recorded in a log book.
14. The results of all non-continuous emission testing shall be forwarded to the local authority within 8 weeks of the completion of the sampling.
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PERMIT 009

15. All methods for emissions testing shall comply with the monitoring protocol attached as Schedule A or any other UKAS approved monitoring technique.

Visible and odorous emissions

16. All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist. All emissions to air shall be free from persistent fume and free from droplets.
17. Emissions from the cremator shall, in normal operation, be free from visible smoke and no emission from the cremator shall exceed the equivalent of Ringelmann Shade I (BS 2742: 1969).
18. All emissions shall be free from offensive odour beyond the process boundary as perceived by the inspector.

Abnormal events

19. In any case where the emission measurement exceeds the concentration limits specified, the results shall be forwarded to the local authority. Where any emission concentration is more than twice the specified emission concentration limit, the local authority shall be advised immediately.
20. Where abnormal emissions, malfunctions or breakdown leading to abnormal emissions occur the Operator shall.
- Investigate immediately and undertake corrective action
 - Adjust the process or activity to minimise those emissions and
 - Promptly record the events and actions taken in the log book (within one working day)
21. The Regulator shall be informed immediately by telephone where;
- The emission is likely to have an effect on the local community or
 - In the event of the failure of key arrestment plant, for example flue gas cleaning plant or the use of the dump stack.

Continuous monitoring

PERMIT 009

22. All continuous monitoring instruments shall be checked daily and calibrated in accordance with the manufacturer's recommendations and at least once a year. Calibration of monitoring equipment must comply with paragraph 5.13 of PG 5/2.

All continuous monitor readings shall be continuously recorded and readings must be on immediate display to operating staff.

Calibration and compliance monitoring

23. Calibration and compliance monitoring shall meet the following requirements as appropriate.

No result obtained from non-continuous monitoring shall exceed the emission concentration limit specified in condition 3 except where either:-

- a) Data is obtained over at least 5 sampling hours in increments of 15 minutes or less, or
- b) At least 20 results are obtained where sampling time increments of more than 15 minutes are involved
And in the case of a) or b)
- c) No daily mean of all 15 minutes mean emissions concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down)

And

- d) No 15 minute mean emissions concentration shall exceed twice the specified emissions concentration limits during normal operations (excluding start-up and shut-down)

24. Non- continuous emissions monitoring of particulate matter should be carried out according to the main procedural requirements of BS ISO 9096:2003, with averages taken over operating periods, excluding start up and shutdown.

Control Techniques**Mercury controls**

25. The operator shall fit equipment to abate mercury emissions from the crematorium by 31 December 2012.
26. The operator shall provide to the local authority a written implementation programme and timetable detailing the dates when mercury abatement equipment will

PERMIT 009

be installed and commissioned at each of the cremators and evidence showing how these dates and the installation will be achieved.

Coffin materials and cremator design

27. PVC and melamine materials shall not be cremated. Cardboard coffins shall not contain chlorine in the wet strength agent. Packaging for stillbirth, neonatal and foetal remains shall not include chlorinate plastics.
28. Coffins containing lead or zinc shall not be cremated.
29. The cremator shall be designed and operated in order to prevent the discharge of smoke, fumes, or other substances during charging.
30. The cremator and all ductwork shall be made and maintained leakproof if under negative pressure and gastight if under positive pressure to prevent the escape of gases from the ductwork or cremator to the air.

Good combustions

- 31 All cremators shall be designed to ensure complete combustion and shall be fitted with a secondary combustion zone. The temperature of gases at the entrance to and exit from the secondary combustion zone shall be continuously monitored and continuously recorded. Visual alarms must be triggered when the temperature in the secondary combustion zone falls below that specified in condition 32 below.
32. The gases shall be held at 1123K (850°C) for two seconds in the secondary combustion zone. The concentration of oxygen at the outlet of the secondary combustion zone shall be not more than 6% by volume if measured on a wet basis or an average of 6% by volume with a minimum of 3% by volume if measured dry.
33. The charging system shall be interlocked to prevent the introduction of a coffin to the primary combustion zone unless the secondary combustion zone temperature exceeds that specified in condition 32 relevant to the cremator residence time of gases in the secondary combustion zone.

Cremated remains

34. The remains in the cremator shall only be moved when calcination is completed.
35. The removal of ash and non-combustible residues shall be undertaken carefully so as to prevent dust emissions. Cremated remains shall be moved and stored in a covered container.

PERMIT 009

36. Dust emissions during the treatment of cremated remains shall be minimised. In meeting this requirement, all activities involving the handling of cremated remains which are likely to generate fugitive dust shall be undertaken in the ash processor and the ash transfer vent with the dust extraction facilities in operation

It is acceptable to monitor emissions from any arrestment plant fitted on commissioning testing only. Subsequent performance can be demonstrated indicatively, for example by the use of a pressure drop indicator on the bag filter.

Dispersion and dilution

37. The chimney height shall be 12.5 metres above ground level and 4.5 metres above the roof ridge level.
38. Chimneys or vents shall be designed to achieve an efflux velocity of not less than 15m/sec in normal operation.
39. Chimney flues and the ductwork leading to the chimney shall be insulated to minimise the cooling of waste gases and prevent liquid condensation on internal surfaces.

Chimney flues and ductwork shall be cleaned every 6 months to prevent accumulation of material. Care shall be taken in handling residues produced whenever the chimney flues and ductwork are cleaned. (Operators should bear in mind their obligations under waste disposal legislation as to the safe disposal of these residues. The Environment Agency will advise on suitable disposal outlets).

40. Chimneys or process vents shall not be fitted with any restriction at the final opening, for example a plate, cap or cowl, where it is necessary to achieve dispersion of the residual pollutants.

Management

41. A nominated person shall, at all times, be responsible for the implementation of the conditions of this Permit. Charnwood Borough Council will be informed within 21 days of issue of the Permit of the name of the nominated person.
Any changes in the identity of the person so nominated under this condition shall be notified to Charnwood Borough Council within 21 days of the changing taking place.

Adequate arrangements shall be made for deputising for the nominated person in the event of a holiday, sickness or other absence.

PERMIT 009

42. Effective preventative maintenance shall be employed on all aspects of the process including all plant, buildings and the equipment concerned with the control of emissions to air. In particular:
- A Written maintenance, inspection and replacement programme for all aspects of the process shall be prepared, implemented and maintained and it shall be made available for inspection by authorised officers from Charnwood Borough Council
 - Daily and weekly maintenance checks shall be made on the cremators and other plant associated with pollution control equipment. Records of the checks shall be made available to the local authority inspector on request.
43. Essential spares and consumables, particularly those subject to continual wear, shall be held on site when the supplier is not able to provide items from stock within one working day, so that plant breakdowns can be rectified rapidly.

Appropriate management system

44. The activity shall operate in accordance with an effective management system. This shall include a commitment to achieving compliance with the permit conditions and ensuring LAPC considerations are taken account of in the day-to-day running of the process. It may include establishing objectives for improved environmental performance by setting targets, measuring progress and revising the objectives according to results. The system shall include managing risks under normal operating conditions and in accident and emergency situations.

Training

45. Persons employed on the premises, whether employed by the company, or otherwise, shall be given such information, training and supervision as is necessary for the achievement of compliance with this Permit. Matters covered by such information in training shall include:-
- a) Start-up and shut-down of process operations
 - b) Plant failure and other emergencies
 - c) Inspection and monitoring procedures as specified in these conditions.

All operating staff must hold certification from a suitable organisation of their proficiency in operating cremators or, in the case of unqualified staff, must be under the direction supervision of an experienced certified technician. Certified evidence of this proficiency must be made available to the inspector on request.

PERMIT 009

A list must be displayed at or near the cremator control panel which identifies all operators who hold such certification. This list must include the dates on which the training was given, certificate issued and the identify of the instructor.

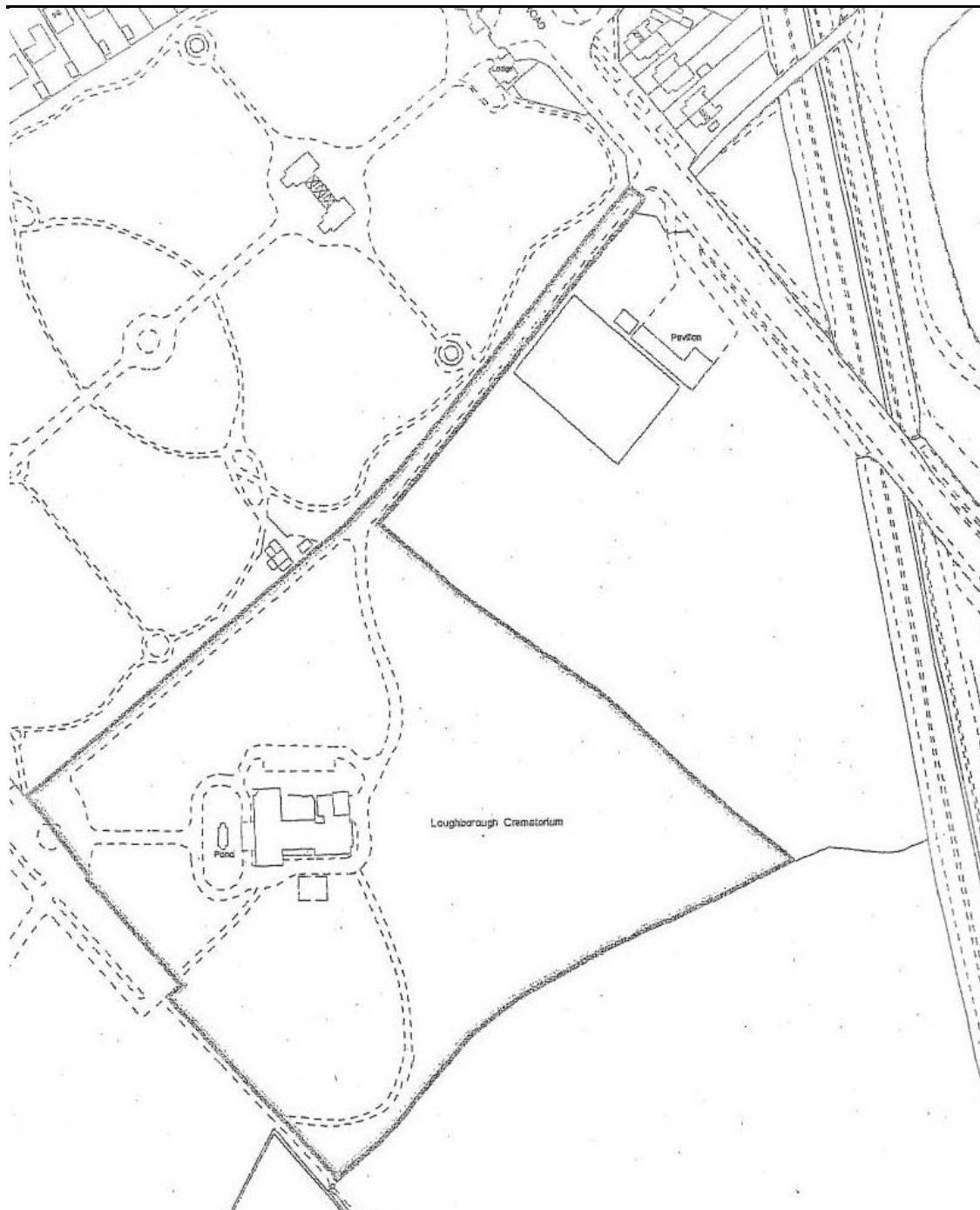
No person other than those identified on the above list, their instructors, service engineers, or qualified representatives of the plant manufacturers may operate the cremator. Certified evidence of this proficiency must be made available to the inspector on request.

46. A statement of training requirements for each operational post and a training record shall be kept for each person whose actions may have an impact on the environment. These documents shall be kept available for inspection by authorised officers from Charnwood Borough Council.

End of conditions

Appendix I Site Location

PERMIT 009



PERMIT 009

Explanatory Notes

This note does not form a part of the permit but contains guidance relevant to it.

Inspections

Regular inspections will be made by officers of Charnwood Borough Council (without prior notice), in order to check and ensure full compliance with this permit.

BAT (Best Available Techniques)

The Permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the implied condition that the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Health and Safety at Work and Other Statutory Requirements

The responsibility you have under legislation for Health, Safety and Welfare in the workplace remains in force. In addition, the Permit does not relieve you of your obligations to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, Building Regulations approval, or some Waste Disposal Licences.

Submission of Information

Note that the Permit requires the submission of certain information to the Local Authority (LA). In addition, the LA has the power to seek further information at any time under Regulation 60(1) EP Regulations provided that it acts reasonably.

Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with Requirement 46(1) EP Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

Variations to the Permit

PERMIT 009

This Permit may be varied in the future (by the LA serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introduction will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Where the Operator ceases or intends to cease the operation of the activity (in whole or in part) the LA should be informed in writing. Such notification must include the information specified in Regulation 24 or Regulation 25 and Part I of Schedule 5 of the EP Regulations.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the LA considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit.

Annual Subsistence Fee

In accordance with Regulation 65(1) of the EPR Regulations the holder of a permit is required to pay a fee for the subsistence of the permit. This fee is payable annually on 1st April. You are advised that under the provisions of Regulation 22 of the EPR Regulations, if you fail to pay the fee due promptly, Charnwood Borough Council may revoke the permit. You will be contacted separately each year in respect to this payment.

Talking to us

Please quote the Permit Number if you contact Charnwood Borough Council about this Permit. To give a Notification under Conditions 19 & 21 the Operator should use the telephone number 01509 634636 or any other number notified in writing to the Operator by Charnwood Borough Council for that purpose.

Appeals in relational to Environmental Permits

1. Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for the Environment, Food and Rural Affairs within 6 months from the date of the permit issue.

PERMIT 009

2. Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations and should be addressed 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 6PN

3. An appeal brought under Regulation 31(b) in relation to the conditions in a permit will not suspend the effect of the conditions appealed against: the conditions must still be complied with.
4. There are no forms or charges for appealing. However for an appeal to be valid, appellants are legally required to provide information as detailed in paragraphs 2(1) and (2) of Schedule 6 of the EP Regulations., namely:
 - I. A statement of the grounds of appeal
 - II. A copy of any relevant permit
 - III. A copy of any relevant correspondence between the appellant and the regulator
 - IV. A statement indicating whether the appellant wishes the appeal to be in the form of a hearing or dealt with by way of written representations.
5. 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, to direct the local authority either to vary any of these other conditions or to add new conditions.