



Permit with introductory note

**Environmental Permitting (England and Wales)
Regulations 2016 (as amended)**

Installation address

**Eastbourne Crematorium
Hide Hollow
Langney
Eastbourne
BN23 8AE**

Permit Reference: PPC/2/P1



Contact Details:

Eastbourne Borough Council
Environmental Health
1 Grove Road
Eastbourne
East Sussex
BN21 4TW

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Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 (S.I. 2016 No. 1154) (“the EP Regulations”) to operate an installation carrying out one or more of the activities listed in Schedule 1, Part 2, Part B of those Regulations, to the extent authorised by the Permit.

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 specific conditions are subject to the Best Available Techniques condition placed in the permit, that the Operator shall use the best available techniques for preventing or, where that is not practical, reducing emissions from the installation.

Please note techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Brief description of the installation regulated by this permit

Installation for the Cremation of human remains as prescribed by Section 5.1 Part B (b) of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016. Process Guidance Note 5/2(12) Statutory Guidance for Crematoria.

The installation has 3 x Facultative Technologies abated cremators: 2 x FTII and 1 x FTIII (Bariatric Size) fired by natural gas. There is a PCME Dust Leak Alert 65 continuous particulate monitor and a *Siemens Ultramat 23* analyser for the monitoring of oxygen and carbon monoxide. Gases are cooled via the flue gas coolers. Cooled flue gases enter the flue gas cleaning plant (dry scrubbing). The flue gas treatment equipment consists of these major components: reaction zone reverse jet filter unit fitted with a discharge screw. Trace heating equipment at the bottom of the filter hopper and screw. A by-pass duct with isolation dampers and a speed controlled exhaust gas fan. Plant is controlled by a programmable logic controller. Nedermans bag filters are fed with dosing reagent Factivate. Compressed air for the bag filter blow-back and control damper and valve operations is provided from a compressed air set. Once gases have passed through the flue gas treatment plant, all emissions exit from a flue in the chimney. Final conditioning of the ashes is undertaken in an FT high speed cremulator and ash transfer unit.

Superseded Licences/Consents/Permits relating to this installation		
Holder	Reference Number	Date of Issue
Eastbourne Crematorium	N/K	29 th September 1992
Eastbourne Crematorium	PPC/1	N/K
Eastbourne Crematorium	PPC/2	1 st March 2005

Confidentiality

The Permit requires the Operator to provide information to Eastbourne Borough Council. The Council will place the information onto the public registers in accordance with the requirements of the EP Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to Eastbourne Borough Council to have such information withheld from the register as provided in the EP Regulations. To enable Eastbourne Borough Council to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.



Variations to the permit

Your Attention is drawn to the Variation Notification Procedure condition in the Permit. This Permit may be varied in the future. If at any time the activity or any aspect of the activity regulated by the following conditions changes such that the conditions no longer reflect the activity and require alteration, the Regulator should be contacted.

Surrender of the permit

Where an Operator intends to cease the operation of an installation (in whole or in part) the regulator should be informed in writing. Such notification must include the information specified in regulation 24, or in accordance with Regulation 25 of the EP Regulations for Permits to which Regulation 24 does not apply.

Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 21 of the EP Regulations. A transfer will be allowed unless the Authority considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

Responsibility under workplace health and safety legislation

This Permit is given in relation to the requirements of the EP regulations. It must not be taken to replace any responsibilities you may have under Workplace Health and Safety legislation.

Appeal against permit conditions

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Appropriate Authority, (Secretary of State for the Environment, Food and Rural Affairs, in England and the Welsh Ministers in Wales) Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations.

Appeals should be received by the Secretary of State for Environment, Food and Rural Affairs or the Welsh Ministers at the following addresses:

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

Or for appeals in Wales:

The Planning Inspectorate
Crown Buildings
Cathays Park
CARDIFF
CF10 3NQ

Please Note

An appeal brought under Regulation 31 and Schedule 6, 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.

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 either to vary any of these other conditions or to add new conditions.

Our enforcement of this Permit will be in accordance with the Regulators' Compliance Code. A copy is on the Business, Innovation and Skills Department website: <http://www.bis.gov.uk/files/file45019.pdf>.

End of introductory note

**Permit issued under the Environmental Permitting
(England and Wales) Regulations 2016**

Permit

Permit Reference: PPC/2/P1

Eastbourne Borough Council (the Regulator) in exercise of its powers under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 (S.I. 2016 No. 1154) hereby permits

Eastbourne Crematorium (“the operator”),

Whose registered office is:

**Hide Hollow
Langney
Eastbourne
BN23 8AE**

To operate an installation at:

**Eastbourne Crematorium
Hide Hollow
Langney
Eastbourne
BN23 8AE**

Description of the installation regulated by this permit:

Crematoria as prescribed by Section 5.1 Part B (b) of Schedule 1 to the Environmental Permitting (England and Wales) Regulations 2016

to the extent authorised by and subject to the conditions of this Permit and within the boundary (marked in red) identified in Condition 1.2.

Signed



Stewart Bryant
Authorised to sign on behalf of Eastbourne Borough Council

Dated

23.05.19

CONDITIONS

EXTENT AND LIMIT OF THE INSTALLATION

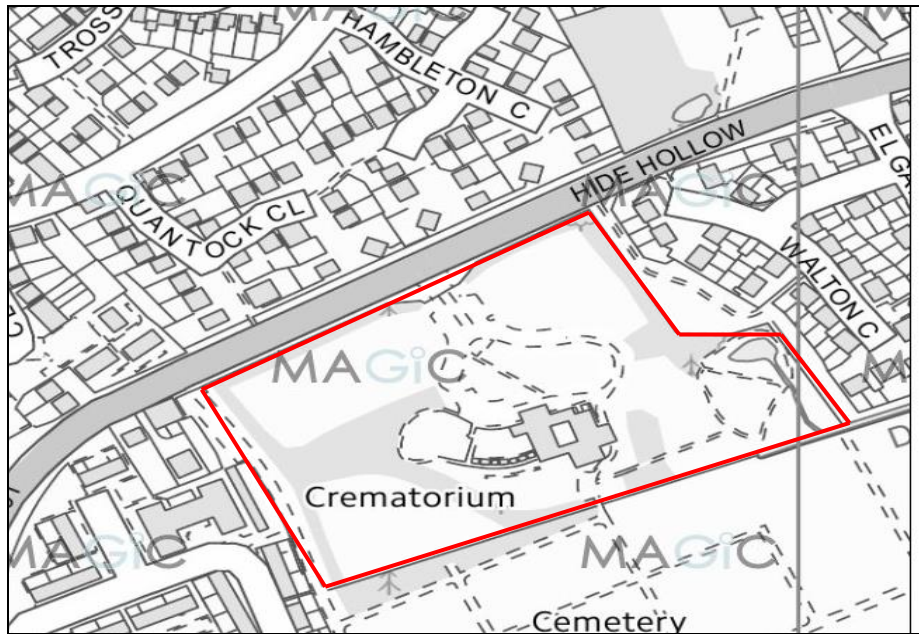
1. The Permitted Installation

1.1 The Operator is authorised to carry out the activities and/or associated activities specified in **Table A**.

Table A			
Activities under schedule 1 of the Regulations/Associated Activity	Description of specified activity	Schedule 1 Activity Reference	Limits of Specified Activity
Storage and handling of human remains	Storage of human remains prior to cremation	Directly associated activity	Receipt and storage of human remains in coffins, caskets or shrouds
Cremating of human remains using equipment as specified in Schedule A	Cremating remains in coffins/caskets/shrouds designed to achieve the emission limits specified in Table B	Section 5.1 Part B (b)	Cremating human remains with the equipment listed in Schedule A only
Removal and handling of non-combustible residues from the cremator and pulverizing of calcinated remains using equipment as specified in Schedule A	Removal and handling of calcinated remains from the cremator and pulverizing using equipment as specified in Schedule A - including storage of this in closed containers. Removal and handling of non-combustibles from cremators and storage until disposal from site	Directly associated activity	Removal and handling of non-combustibles from the cremator and disposal from site. Removal and handling calcinated remains from cremator and pulverizing using equipment in Schedule A only and storage in covered containers

1.2 The operator is authorised to carry out the activities and associated activities as specified and within the boundary shown in red on the Site Plan (overleaf)

Site Plan



Emission limits and controls

Visible and Odorous Emissions

2. All emissions to air should be free from droplets
3. All emissions to air from the combustion process, other than condensed water vapour shall be free from persistent visible emissions. Emissions from the combustion process shall be free of visible smoke in normal operation and shall not exceed Ringelmann Shade 1 as described in BS2742:2009.
4. There shall be no offensive odour beyond the site boundary as perceived by the regulator.
5. If either or both visual emissions or odour issues occur, visual and olfactory boundary checks shall be undertaken at least once per day, with time, location, weather conditions such as wind direction and strength, results recorded in the logbook (as per condition 13) and the Regulator shall be informed.
6. When cremators are in use a visual assessment shall be made at least once a day or as determined necessary to comply with Condition 3. The results of this shall be recorded in the logbook required to be kept in accordance with Condition 13.
7. Emissions to air via the stacks serving the cremators shall not exceed the emission limit requirements as specified in Table B

Note 1 – the Environment Agency monitoring guidance M2: advises that “the choice of a suitable averaging period is strongly influenced by the expected short-term variability in emission levels and whether peaks are important.” Also, “the averaging time for manual techniques is often constrained by the need for a sampling run of appropriate duration...because manual techniques have an associated analytical end-method stage (e.g. weighing of particulate sample) for which a sufficient mass of pollutant must be sampled to achieve limit of detection (LOD)...” For these reasons regulators are advised to ensure that those undertaking monitoring liaise with the relevant analytical laboratory to determine the detection limit of the analytical method in order to obtain an estimate of the expected concentration of the monitored substance in the stack gas and calculate the sampling time required to ensure that the LOD of the sampling method is met. In any case it is not expected that the duration of sampling runs will be less than 30 minutes or longer than 8 hours.

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8. Each individual cremator must meet the provisions in Table C below. If these provisions cannot be met extractive monitoring of Dioxins and furans will be required (see Row 6 of Table B)

Table C				
If combustion provisions in Rows 8-10 are <u>not</u> met, then the dioxin emission limit and monitoring provision in Row 6 should be applied				
Row	Parameter	Combustion Provision	Type of Monitoring	Monitoring Frequency
8	Temperature	<ul style="list-style-type: none"> Minimum of 800°C (1073K) in the secondary combustion chamber Minimum of 850°C (1123K) in the secondary combustion chamber when operating under emergency conditions without abatement - Measuring point should be at the last measuring thermocouple 	<ul style="list-style-type: none"> Measure at the exit of the secondary combustion zone; measuring point should be at the last measuring thermocouple Automatically record temperatures; Visual alarm when temperature falls below 800°C (1073K); Record alarm activations; Interlock to prevent cremator loading below 800°C 	Continuous
9	Residence Time	2 second residence time (minimum) in the secondary combustion chamber without correction for temperature, oxygen or water vapour	Measurement and calculation of the volume rate of the flue gases throughout the cremation cycle at the cremator exit	Upon commissioning of new or replacement cremators
10	Oxygen	At the end of the secondary combustion chamber: <ul style="list-style-type: none"> Measured wet or dry, minimum average 6% and minimum 3% 	<ul style="list-style-type: none"> Record of concentration at outlet of secondary combustion zone; Visual alarm and record alarm activations; During discontinuous tests, continuous reference oxygen measurements should be at the same sampling location as the parameters tested 	Continuous

Abnormal Events

9. In the case of any abnormal emissions, malfunction or breakdown or control system alarm event leading to abnormal emissions the Operator shall:
- Investigate and undertake remedial action immediately
 - Adjust the process or activity to minimize those emissions; **and**
 - Promptly record the events and actions taken in the logbook required to be kept in accordance with Condition 13
10. The Regulator shall be informed without delay, whether or not there is related monitoring showing an adverse result:
- If there is an emission that is likely to have an effect on the local community; **or**
 - In the event of the failure of key arrestment plant, for example, bag filtration plant or scrubber units; **or**
 - In the event of the use of the bypass or emergency relief vent

11. The Operator shall provide a list of key arrestment plant and shall have a written procedure for dealing with its failure, in order to minimize any adverse effects
12. Adverse results from any monitoring activity (continuous and non-continuous) shall be investigated immediately. The Operator shall:
 - Identify the cause and take corrective action
 - Clearly record as much detail as possible regarding the cause and extent of the problem and remedial action taken
 - Retest to ensure compliance as soon as possible
 - Notify the Regulator of results

Logbook

- 13 A log book shall be kept containing a record of all visual and olfactory assessments made in accordance with Conditions 5, 6, 9, 24, 25, 26, 42, 50, and 60. The record shall include the date and time of the assessments, the result, name of the person undertaking the assessment. The log book shall be kept on site, be available for inspection by the Regulator and shall contain at least the previous 2 years records. If any records are kept off-site they should be made available for inspection within one week of any request by the regulator.

Instrument configuration and calibration for Particulate CEMs

14. Continuous Emissions Monitors (CEMs) must be periodically checked (calibrated) to ensure readings are correct. Before any calibration or instrument configuration is carried out it is fundamental to carry out checks that ensure the instrument is operating correctly. The calibration procedure applied depends on the type of monitoring to be performed by the instrument. Table D gives the appropriate calibration required for this crematorium. Those instruments operating in qualitative mode but that have not been calibrated with an isokinetic test and filter leak monitors that record trends, are considered to be operating as indicative monitors. Where trigger alarms are set for qualitative instruments or filter leak monitors, an output level should be set which corresponds to around 75% of the emission limit value (ELV) – see Table D

Table D: Options for continuous monitoring of particulate						
Type of Monitoring	Information recorded by instrument	What the alarm levels can detect	Capability of instrument	Tests required on initial set up	Annual tests required	3 yearly tests required
Qualitative See Note 1	Mg/m ³ over time	% of ELV	Capable of being calibrated for a specific application	Functionality test 3/5 point calibration	Functionality test 3/5 point calibration	Functionality test 3/5 point calibration
Qualitative See Note 1	Mg/m ³ over time	Approx % of ELV	Capable of being calibrated for a specific application	Set up and 3 point calibration	Instrument health check	3 point calibration Health check
Filter leak device	Trend of plant operation over time	Change in plant operation causing a defined step change	Filter leak monitor with trend output	Set up and reference	Instrument health check	Instrument health check Set reference
Gross filter failure device	Incidence of gross failure	Catastrophic failure of filter	Instrument designed to detect large increases in emissions	Set up Set alarm	Instrument health check	Health check Set up
Note 1 – instrument response should be correlated to the results of multiple isokinetic gravimetric samples according to the standard reference method (SRM) which is typically EN-13284-1						

Continuous Emissions Monitoring (all substances)

15. All continuous monitoring readings shall be on display to an appropriately trained member of operating staff
16. Analysers (as specified in Schedule A) shall be situated in an appropriate area and fitted with visual and audible alarms to warn the operator of any high emissions or plant failure
17. Alarm activations shall be automatically recorded when emissions limits as specified in Condition 7 and 8, Table B and C are exceeded.
18. All continuous monitors shall be operated, maintained and calibrated (or referenced, in the case of filter leak devices) in accordance with the manufacturers' instructions, which shall be available for inspection by the Regulator. The relevant maintenance and calibration (or referencing) shall be recorded.
19. Emission concentrations may be reported as zero when the plant is off and there is no flow from the stack. If required a competent person shall confirm that zero is more appropriate than the measured stack concentration if there is no flow.
20. Any CEM used shall provide reliable data >95% of the operating time (i.e. availability >95%). A manual or automatic procedure shall be in place to detect instrument malfunction and to monitor instrument availability.
21. The introduction of dilution air to achieve emission concentration limits shall not be permitted.
22. The particulate monitors as specified in Schedule A, shall continuously indicatively

monitor and record concentrations of particulate matter emitted in the exhaust gas from the abatement plant exhaust.

23. The carbon monoxide analyser as specified in Schedule A shall continuously monitor and record concentrations of carbon monoxide emitted in the exhaust gas from the abatement plant exhaust. Record data at 15 second intervals or less.
24. The oxygen concentration at the outlet of the secondary combustion chamber of the cremator shall be continuously monitored and recorded as per condition 13.
25. CEM instruments for carbon monoxide and oxygen emitted from the abatement plant shall be zeroed daily and calibrated according to their maintenance requirements. Gases used for calibration should be traceable to National Standards in accordance with manufacturers instructions. Records of calibrations shall be kept in the logbook as per condition 13.
26. For particulates CEM monitoring see Table D for correct instrumentation tests. Records of calibrations shall be kept in the logbook as per condition 13.
27. All continuous measurements shall be started from measured values from 2 minutes after the cremator door is closed.
28. Continuous monitoring from the abatement plant shall be recorded and kept on site for a minimum of 2 years and will be available to the Regulator upon request.

Sampling Provisions

29. Adequate sampling locations shall be in place to obtain representative samples for all release points:
 - Sampling points on new plant should be designed to comply with the British or equivalent standards (BS, CEN or ISO)
 - The operator should ensure that relevant stacks or ducts are fitted with facilities for sampling which allow compliance with the sampling standards.

Continuous monitoring Results reporting

30. The Operator should report monitoring data as follows:

Every 6 months a report shall be submitted containing the following continuous monitoring data for carbon monoxide the data shall be submitted covering a period of either 4 weeks or a calendar month:

- Values that exceed the 95% limit for carbon monoxide (and particulate matter, if appropriate) in that period;
 - 60 minute mean emission values that exceed the 100% limit for carbon monoxide (and particulate matter, if appropriate) in that period;
 - A list of the highest 60 minute mean emission value for each period;
 - The 95th percentile value for each period;
31. For temperature and oxygen, the operator shall report the following continuous monitoring values to the regulator every 6 months:
 - Secondary chamber entrance temperature, 4 weekly/monthly maximum and minimum (of 5 minute averages);

- Secondary chamber exit temperature, 4 weekly/monthly maximum and minimum (of 5 minute averages);
 - Oxygen concentration, 4 weekly/monthly minimum (of 5 minute averages)
32. Where any values have been exceeded in any 4 weekly/monthly or 6 monthly reporting period, records shall be kept that identify the number of times that the limit was exceeded during the reporting period, the levels of the exceedance, and the time, date and cremation reference. This data shall be kept and made available to the regulator.
33. Where the combustion provisions in Table C cannot be met then the dioxin limits specified in Table B, Row 6 will need to be met and extractive testing to monitor dioxins will be required. A detailed report of why the combustion provisions could not be met and results of the dioxin monitoring shall be given to the regulator.
34. Concentration limits from cremated remains reduction plant that vents externally shall be abated to meet the emission limit for particulate matter in Table B, Row 7. Testing at commissioning and after substantial change. Monitoring of this plant shall be indicative (e.g. bag filter with pressure drop)

Annual extractive testing

35. The Operator shall advise the regulator in writing, at least 7 days in advance of any extractive emission testing/monitoring to be carried out in order to determine compliance with emission limit values (as per Tables B and C). The operator should state the provisional time and date of monitoring, pollutants to be tested and the methods to be used (as per Environment Agency (EA) Technical Guidance Note M2 Monitoring and see Schedule B).
36. The results of non-continuous emission testing shall be forwarded to the regulator within 8 weeks of completion of the sampling.
37. Extractive testing shall be carried out for mercury, hydrogen chloride, carbon monoxide and organic matter on an annual basis. Total particulate matter requires an annual instrument health check (See Table D) and periodic check every 3 years. This shall be used to check compliance with emission limits (as per Table B) and to check continuous analysers are working correctly. Testing shall be done in accordance with the requirements of M2. Any deviation from these methods must be identified. Any changes to sampling points and or platform shall be within the requirements as defined in the EA's TGN M1 Sampling requirements for stack emission monitoring.

Stacks, Vents and Process Exhausts

38. In order to ensure sufficient dispersion from stacks, the necessary stack height shall be calculated using HMIP Technical Guidance Note D1 (Dispersion).
39. The minimum discharge velocity from the stack, during peak operating conditions, shall be 15m/sec to ensure dispersion of pollutants.
40. All arrestment plant and bypass stack shall be ducted to the main stack.
41. The stack shall not have any restriction fitted at the opening point such as a cap, cowl or cover. A cone may be used to assist the exit velocity to achieve greater dispersion

Failure of Abatement Plant

42. In the event of the use of a ERV (Emergency Relief Vents) or bypass during cremation the operator shall record:
- The failure, its cause and cure shall be entered in the logbook (as per condition 13);
 - The regulator shall be notified immediately.
43. ERV/bypass shall only be used when the heat removal plant has failed and the abatement plant would be damaged **or** during warm-up and shutdown, provided that compliance is demonstrated with the carbon monoxide limit.

Coffin Materials

44. Coffins to be cremated shall not be constructed or have furnishings made from PVC and melamine. It is recommended that funeral directors using this crematorium are regularly informed of this condition and conditions 45, 46 and 47).
45. Cardboard coffins shall not contain chlorine in the wet-strength agent (e.g. not using polyamidoamine-epichlorhydrin based resin (PAA-E)).
46. Packaging for stillbirth, neonatal and foetal remains shall not contain any chlorinated plastics.
47. Coffins containing lead or zinc shall not be cremated.

Cremator Design and Combustion Conditions

48. The cremators and ductwork shall be designed and operated in order to prevent the discharge of smoke or fumes during charging.
49. 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 for good combustion (See Table C)
50. The cremators and all ductwork shall be made and maintained gas tight if under positive pressure to prevent the escape of gases from the ductwork or cremator to the air. If emissions occur, the corrective action taken shall be recorded in the logbook, as per condition 13.
51. All cremators shall be designed to ensure complete combustion and shall be fitted with a secondary combustion zone
52. The manufacturer shall state the volume of the secondary combustion zone.
53. When re-bricking a cremator, the convolutions of the secondary combustion chamber shall be maintained and the volume of the chamber recalculated and restated.

Waste and Disposal of Residues

54. The remains in the cremator/s shall only be removed when calcination is completed
55. The removal of ash and non-combustible residues from the cremator shall be undertaken carefully so as to prevent dust emissions via the flue.

56. Cremated remains and waste containing mercury shall be moved and stored in a tightly covered container. Waste materials collected from inside the abatement plant shall be disposed of in the same way as waste sorbent.
57. Frequent checks shall be made to ensure the collection drum for spent reagent has sufficient capacity and cannot overflow. The drum shall remain sealed except when checking, carrying out maintenance or changing over the drum. Drums shall be kept securely sealed in storage. Records of waste removal by licensed contractor shall be kept for a minimum of 2 years.
58. The cremulator as specified in Schedule A, shall not be used without the extraction and arrestment plant in operation

Cremator Maintenance and General Maintenance

59. Maintenance at the crematorium shall include:

- Inspecting, repairing and replacing brick, flue, control software and hardware, monitoring equipment etc
- Regular maintenance and inspection by service engineer
- Operator maintenance – daily, weekly, monthly, by number of cremations.

60. All aspects of the process including all plant (including the flue gas treatment plant), buildings and the equipment concerned with the control of emissions to air shall be properly maintained. The operator shall have:

- Written maintenance and cleaning programme in respect to all pollution control equipment, including control instrumentation, cremator secondary chamber, ducts and flues and abatement plant
- A record of maintenance that this has been undertaken shall be recorded in the logbook as per condition 13 and be available to the regulator upon request.

Gas Usage and Carbon Dioxide

61. The operator shall keep simple records of quarterly gas consumption for inspection by the regulator. Consumption shall be converted into carbon dioxide (CO₂) equivalent emissions using the following conversion equation:

$$\text{Gas usage (kWh)} \times \text{conversion factor} = \text{kgCO}_2\text{e}$$

The conversion factor for natural gas at the time of the publication of PG Note 5/2(12) was 0.1836, but this figure will require checking by the operator (see DEFRA website for current conversion factor)

Cremation Standards in the Event of Mass Fatalities

62. A simple plan shall be drawn up for dealing with emergencies which give rise to mass fatalities, which should mainly address the holding of additional spares and consumables and the training of suitable members of staff.

Appropriate Management Systems

63. An appropriate environmental management system (EMS) shall be implemented for all areas of the operation covered by this permit. *(Effective management is central to environmental performance; it is an important component of BAT and of achieving compliance with permit conditions. It requires a commitment to establishing objectives, setting targets, measuring progress and revising the objectives according to results. This includes managing risk under normal operating conditions and in accidents and emergencies. An EMS may adopt published standards (ISO 14001 or the EU Eco Management and Audit Scheme (EMAS) or by setting up an EMS tailored to the nature and size of the process).*

Training

64. Staff at all levels require necessary training and instruction in their duties relating to control of the process and emissions to air. (Training can be addressed in the EMS and other training available is operated by the Institute of Cemetery and Crematorium Management and the Federation of Burial and Cremation Authorities)

65. All staff whose functions could impact on air emissions from the activity shall receive appropriate training on those functions. This should include:

- Awareness of their responsibilities under the permit;
- Steps that are necessary to minimize emissions during start up and shut down;
- Actions to take when there are abnormal conditions, or accidents or spillages that could; if not controlled, result in emissions;

66. The operator shall maintain a statement of training requirements for each post with the above mentioned functions, in condition 65, and keep a record of the training received by each person. These documents shall be made available to the regulator upon request.

General Operation and Management

67. The operator shall ensure:

- Proper management, supervision and training for process operations;
- Proper use of equipment;
- Effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air;
- Ensure spares and consumables, in particular those subject to continual wear are held on site, or available at short notice from guaranteed local suppliers, so that plant breakdowns can be rectified quickly.

68. Checks shall be made daily to ensure the abatement dosing system has sufficient reagent for the day ahead. The feed system shall be checked to ensure it is working satisfactorily. Records of the amount of reagent used shall be kept and made available to the regulator upon request.

69. The operator shall send the regulator, by no later than 1 June 2010 and 1 April in each year thereafter, a certificate from the Crematoria Abatement of Mercury Emissions Organisation (CAMEO) 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/calendar year;
- b. The number of cremations undertaken in cremators fitted with operational mercury abatement equipment in the previous 12 months; **or**
- c. The number of cremations undertaken in the previous 12 months and the proportion of those subject 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).

Mothballing

70. If a cremator is mothballed, it shall not be used unless it is recommissioned by the service company as an abated cremator.

Variation Notification Procedure

71. If the operator proposes to make a change in the operation of the installation, he must, at least 14 days before making the change, notify the regulator 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 in operation" means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

Best Available Technique

72. The best available techniques shall be used to prevent, or where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation that is not regulated by any other condition of this permit.

End of Conditions

Schedule A: Equipment Type

Schedule A		
Equipment Type	Specification/Location	Number of Units
3 x Facultatieve Technologies Cremators	2 x FTII models and 1 x FTIII Bariatric size Cremator	3
Siemens Ultramat 23 Gas Analyser	At exit to secondary chamber – in Plant room	1
Particulate Monitor Leak Alert 65	PCME particulate monitor	1
Cremulator & Ash Cabinet	FT High Speed Cremulator (Flail) located in crematory	1
Flue Gas Treatment Plant	1 x Danstoker hot water boiler, 1 x Transtherm Cooling air blast cooler, Nedermans bag filters fed by the manual dosing reagent Factivate dry scrubbing filtration system	1
Computerised control system	Computer control system – Programmable Logic Controller	1

Schedule B: Sampling Protocol

The sampling methods for continuous and/or extractive testing of pollutants specified in Table B & C shall be carried out in accordance with the most recent testing method as per Schedule B below.

Schedule B		
Substance	Emission Testing Method	Emission Guidance Method
Particulate Matter (averaged reading taken over operating periods. Not including start-up & shutdown)	BS EN 13284-1 & MID (for particulate matter below 50mg/m ³) See BS ISO 9096: 2017, BS ISO 25597 & BS ISO 13271 (for particulate >50mg/m ³)	OR as specified in the Environment Agency Technical Guidance Note M2 – whichever is the most recent
Organic Matter (excluding particulate matter)	BS EN 12619	As above
Oxygen	BS EN 14789	As above
Hydrogen Chloride	BS EN 1911	As above
Carbon Monoxide	BS EN 15058	As above
Mercury	BS EN 13211	As above
Polychlorinated dibenzo-p-dioxins and furans (PCDD/F)	BS EN 1948: parts 1-3 (the standard is in 3 parts, covering sampling, extraction & quantification) & MID	As above

END OF PERMIT