



Permit with introductory note

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

Installation address

**Medipower Limited
Shed 4A
Newhaven Port
East Quay
Newhaven
East Sussex, BN9 0BN**

Permit Reference: LDC/SWIP/1/P1



Contact Details:

Environmental Health
Lewes District Council
Southover House
Southover Road, Lewes
BN7 1AB

Tel: 01273 471600

www.lewes-eastbourne.gov.uk

Email: CustomerFirst@lewes-eastbourne.gov.uk

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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 13 of those Regulations, to the extent authorised by the Permit.

The Permit includes conditions which 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

The installation comprises a small waste incineration plant with a capacity of less than 3 tonnes per hour. The plant falls within Schedule 13 of the Environmental Permitting (England and Wales) Regulations 2016. Employing a medical waste combustion plant combusting 500Kg per hour of non-hazardous medical waste to a minimum ratio of 75% to 25% biomass and generating 1.4 mW / hour of thermal energy and 250 kW / hour of electrical energy.

Non-hazardous sterilised medical flock waste will be delivered to site by a lorry carrying a 35 cubic yard compactor bin on a daily basis. On Mondays and Thursdays only, there will be a second delivery of a 50 cubic yard open topped hook lift skip with full and automatic sheeting, delivering nappies. The waste will be mechanically tipped directly into a hopper/conveyer system which will feed the system continuously; the waste will be conveyed to a sealed shredder before going into the combustion chamber

Initial gasification and partial combustion is undertaken in the primary chamber following which total combustion at a temperature of 850^oC for a minimum of 2 seconds is undertaken in the secondary chamber a cyclone then removes large particulate and reduces the gas temperature to 650^oC.

The exhaust heat is recovered through a CTEC compact heat exchanger generating super-heated steam to be then forwarded to a specifically designed steam turbine which in turn drives an alternator to generate electricity. Steam exhaust provides additional thermal energy. The whole system is controlled automatically via a PLC.

Hydrated lime and activated carbon is injected to control emissions of acid gases (SO₂, HCl and HF), dioxins & furans, and volatile heavy metals, this is prior to the gases and dosing agents passing through a bag filter.

After the Bag Filter there is a further activated Carbon polishing catalyst filled with carbon pellets. This is followed by a very small injection of water with urea into the main flue gas duct. Followed by a coalescing filter prior to final discharge from a 13.65m stack.

An IED-compliant continuous emissions monitoring system (CEMS) is also employed, for the measurement of emissions of oxides of nitrogen, sulphur dioxide, carbon monoxide, particulates, hydrogen chloride and volatile organic compounds, as well as oxygen, water vapour, temperature and pressure for correction to IED reference conditions (11% O₂, dry and STP).

Superseded Licences/Consents/Authorisations relating to this installation		
Holder	Reference Number	Date of Issue
N/A	N/A	N/A

Confidentiality

The Permit requires the Operator to provide information to Lewes District 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 Lewes District Council to have such information withheld from the register as provided in the EP Regulations. To enable Lewes District 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 notified 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 bought under Regulation 31 (2) (b), (c) 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

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

Permit

Permit Number: LDC/SWIP/1/P1

Lewes District 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:

Medipower Limited (“the Operator”),

Whose registered office is:

**Clean Thermo Dynamic
New Road
E Plan Industrial Estate
Newhaven
BN9 0EX**

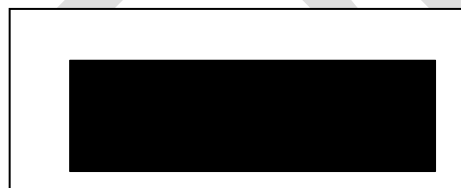
Company Number: 10759638

To operate an installation at

**Medipower Limited
Shed 4A
Newhaven Port
East Quay
Newhaven
East Sussex, BN9 0BN**

to the extent authorised by and subject to the conditions of this Permit and within the boundary marked in red on the site plan.

Signed



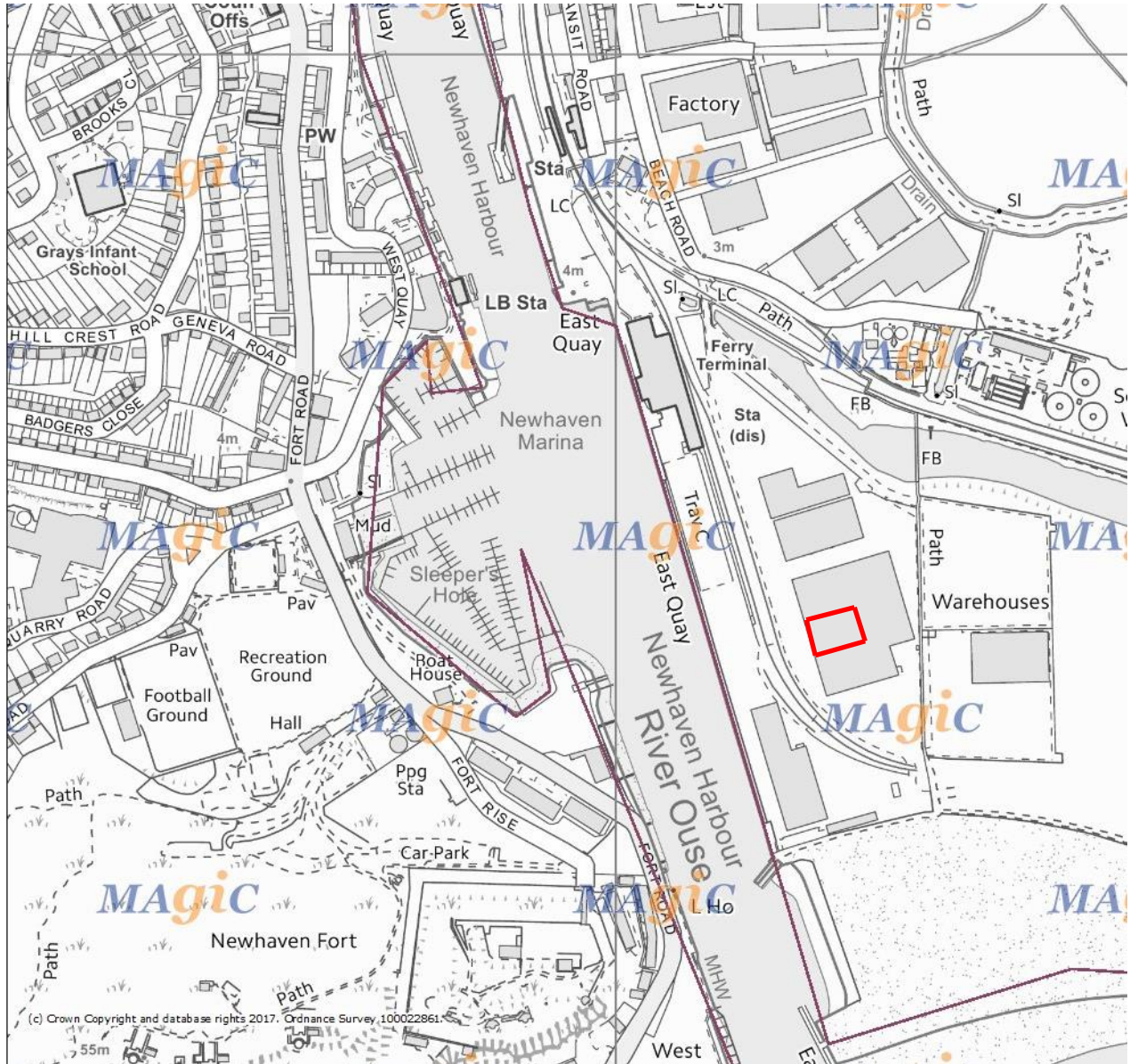
**Authorised to sign on behalf of
Lewes District Council**

Dated

30th April 2018

CONDITIONS

Location & Site plan (Installation boundary marked in red)





1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) In accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficiently trained, competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this Permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
- (c) where waste disposal is necessary, this is undertaken in a manner which minimised its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made; and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in Schedule 1 table S1.1 ("Activities").

2.1.2 Waste authorised by this Permit in condition 2.3.4 shall be clearly distinguished from any other waste on the site.

2.2 The site

The activities shall not extend beyond the site, being the land shown edged in red on the site plan above.

2.3 Operating techniques

- (a) The activities shall, subject to the conditions of this Permit, be operated using the techniques and to the limits described in the documentation specified in Schedule 1, table S1.1, unless otherwise agreed in writing by the Regulator.
- (b) If notified by the Regulator that the activities are giving rise to pollution, the operator shall submit to the Regulator for approval within the period specified, a revision of any management plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Regulator.

- 2.3.1 Any raw materials or fuels listed in Schedule 1 table S2.1 shall conform to the specifications set out in that table.
- 2.3.2 The incinerator may be operated 24 hours a day provided monitoring and telemetric control is enabled, together with auto shutdown ability and attendance on site within 4 hours.
- 2.3.3 Waste shall only be accepted for incineration if:
- (a) it is of a type and quantity listed in Schedule 1 table S2.2; and
 - (b) it conforms to the description in the documentation supplied by the producer or holder.
- 2.3.4 Waste originating from abatement process activities within Medipower Ltd. may also be re-incinerated.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.7 The operator shall incinerate only those clinical wastes where the throughputs, and pollutant compositions are within the ranges specified in table S2.2 of Schedule 1.
- 2.3.8 Clinical waste shall not be charged, shall cease to be charged, and in no circumstances continue to be incinerated for a period of more than 4 hours uninterrupted if:
- (a) The secondary combustion chamber temperature is below, or falls below, 850°C.
 - (b) Any continuous emission limit value in Schedule 1 table S3.1 is exceeded.
 - (c) Monitoring results required to demonstrate compliance with any continuous emission limit value in Schedule 1 table S3.1 are unavailable.
 - (d) In the event of breakdown.
 - (e) The cumulative duration of operation for (a), (b), (c) and (d) above shall not exceed 60 hours.
- 2.3.9 The operator shall have at least one auxiliary burner operational at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.8, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.8 is maintained in the secondary combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in Schedule 1 tables S3.1, and S3.2.
- 3.1.2 The Emission limits given in Schedule 1 shall not be exceeded.

3.1.3 Wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with Schedule 1 table S 3.3. Additional samples shall be taken and tested and appropriate action taken, whenever,

- (a) disposal or recovery routes change; or
- (b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.

3.1.4 Storage capacity shall be provided for contaminated rainwater runoff from the waste incineration plant, and for contaminated water arising from spillage or firefighting operations. The storage capacity shall be adequate to ensure that such waters tested and treated before discharge and where necessary removed by a licensed contractor.

3.1.5 Incinerator Bottom Ash (IBA) and Air Pollution Control (APC) waste (unless as per condition 2.3.4, waste is re-incinerated) shall be removed from site by licensed contractors.

3.2 Emissions of substances not controlled by emission limits.

3.2.1 Emissions of substances not controlled by emission limits (excluding odour but including any spillages to land and any spillages and emissions to surface and/or groundwater) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Regulator that the activities are giving rise to pollution, submit to the regulator for approval within the period specified, an emissions management plan;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Regulator.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Local Authority unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Local Authority that the activities are giving rise to pollution outside the site due to odour, submit to the Regulator for approval within the period specified, an odour management plan;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Regulator

3.4 Noise and Vibration

3.4.1 The operator shall:

- (a) if notified by the Regulator that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Regulator for approval within the period specified, a noise and vibration management plan;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Regulator.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Regulator, undertake the monitoring specified in the following tables in schedule 1 to this Permit:

- (a) point source emissions specified in table S3.1;
- (b) process monitoring specified in table S3.2;
- (c) residue quality in table S3.3

3.5.2 The operator shall maintain records of all monitoring required by this Permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Regulator. Newly installed CEMs, or CEMs replacing existing CEMs, shall have MCERTS certification and have an MCERTS certified range which is not greater than 1.5 times the daily emission limit value (ELV) specified in schedule 1 table S3.1. The CEM shall also be able to measure instantaneous values over the ranges which are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.

3.5.4 The provisions for monitoring shall meet the requirements of TGN M1 Sampling requirements for stack emission monitoring, and TGN M2 Monitoring of stack emissions to air.

3.5.5 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 1 table S3.1; the Continuous Emission Monitors shall be used such that;

- (a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages:

Carbon monoxide	10%
Sulphur dioxide	20%
Oxides of nitrogen	20%
Particulate matter	30%
Total organic carbon (TOC)	30%
Hydrogen chloride	40%

- (b) valid half-hourly average values shall be determined within the effective operating time (excluding the start-up and shut-down periods) from the measured values after having subtracted the value of the confidence intervals in condition 3.5.5 (a);
- (c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour period, the half-hourly average shall in any case be considered valid if measurements are available for a minimum of 20 minutes during the half-hour. The number of half-hourly averages so validated shall not exceed 5 per day;
- (d) daily average values shall be determined as the average of all the valid half-hourly average values within a calendar day. The daily average value shall be considered valid if no more than five half-hourly average values in any day have been determined not to be valid;
- (e) no more than ten daily average values per year shall be determined not to be valid.
- (f) MCERTS certification for the appropriate determinants and ranges as evidence of compliance with BS EN15267-3

4.1 Records

4.1.1 All records required to be made by this Permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Regulator, for at least 2 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this Permit, unless otherwise agreed in writing by the Regulator.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the Permit to the Regulator using the contact details supplied in writing by the Regulator.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Regulator by 31 January each year (or other date agreed in writing by the Regulator). The report(s) shall include as a minimum:

- (a) An overview of the results of the monitoring and assessment carried out in accordance with the Permit.
- (b) the annual production /treatment data set out in Schedule 2 table S4.2; and
- (c) the performance parameters set out in Schedule 2 table S4.3 using the forms specified in table S4.4 of that schedule where required.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Regulator, submit reports of the monitoring and assessment carried out in accordance with the conditions of this Permit, as follows:

- (a) in respect of the parameters and emission points specified in Schedule 2 table S4.1;
- (b) for the reporting periods specified in Schedule 2 table S4.1 and using the forms specified in Schedule 2 table S4.4 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Regulator, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within one month of the end of each year, the operator shall submit to the Regulator using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous year.

4.3 Notifications

4.3.1 The Regulator shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in the Permit; or
- (c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in Schedule 3 to this Permit within the time period specified in that schedule.

4.3.3 All annual extractive monitoring and where the Regulator has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Regulator when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Regulator at least 14 days before the date the monitoring is to be undertaken.

4.3.4 All annual monitoring and requested monitoring shall be reported to the Regulator within 8 weeks of sampling.

4.4 Interpretation

4.4.1 In this Permit the expressions listed in Schedule 4 shall have the meaning given in that schedule.

4.4.2 In this Permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

5.0 Best Available Technique and Variation Procedure

5.1 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 which is not regulated by any other condition of this permit.

5.2 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.

Schedule 1

Site Activities		
Table S1.1 Activities		
Activity Listed in Schedule 13 of the EP Regulations 2016	Description of Specified Activity	Limits of Specified Activity
Waste incineration plant or waste co-incineration plant, under 3 tonnes per hour to which Chapter IV of the Industrial Emissions Directive applies.	Incineration of non-hazardous clinical waste European waste (codes in table S2.2 only) within a bespoke incineration plant fitted with post combustion abatement plant to meet the emission standards in Table S3.1 and with a 13.65m final discharge height.	From receipt of waste to emission of exhaust gas and disposal of waste arising waste types and quantities as specified in table S2.2 of this Permit.
Directly Associated Activities		
Storage of waste to be incinerated	Storage of clinical wastes as specified in table S2.2 only	Within the charging hopper within the building outlined in the site boundary only.
Storage of ash and abatement plant wastes	Storage of ash from the combustion process, including material collected from the bag filtration plant. Liquid waste from the scrubber shall be stored in sealed drums.	Within sealed skips or drums within the building outlined in the site boundary.

Waste types, raw materials and fuels	
Table S2.1 Auxiliary Fuels	Specification
Distillate fuel oil (Gas oil)	Not more than 0.1 % w/w sulphur content

Table S2.2: Waste types to be incinerated			
Code*	Description	Source	Quantity (Tonnes/year)
180104	Waste whose collection and disposal is not subject to special requirements in order to prevent infection. Dressings, linen, disposable clothing, nappies	Medisort	Total 4,080 Tonnes per year.
180109	Medicines Pharmaceuticals/drugs in blue or yellow lidded bins	Medisort	
190203	Wastes from physio/chemical treatment of waste (including dechromatation, decyanidation, neutralisation) premixed wastes composed only of non-hazardous waste.	Medisort	
200199	Municipal waste (household waste, similar commercial, industrial & institutional waste)	Medisort	

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref	Source	Parameter	Limit (including unit)/Reference period		Monitoring frequency	Monitoring Standard(s) or method(s)
			Maximum validated half hourly average	Daily average of validated half hourly averages		
Final discharge stack	Incinerator	Particulate matter	30 mg/m ³	10 mg/m ³	Continuous	BS EN 15267-3 Or M2
		Total Organic Carbons (TOC)	20 mg/m ³	10 mg/m ³		
		Hydrogen Chloride	60 mg/m ³	10 mg/m ³		
		Carbon Monoxide	100 mg/m ³	50 mg/m ³		
		Sulphur Dioxide	200 mg/m ³	50 mg/m ³		
		Oxides of Nitrogen	400 mg/m ³	200 mg/m ³		

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref & location	Source	Parameter	Limit (inc units)	Reference period	Monitoring frequency ¹	Monitoring standard(s) or method(s)
Final discharge stack	Incinerator	Hydrogen Fluoride	4 mg/m ³	Periodic over minimum ½ -hour period	Annual	M2
		Cadmium & thallium and their compounds (total)	0.05mg/m ³	Periodic over minimum 30 minute, maximum 8 hour period		M2
		Mercury and its compounds	0.05mg/m ³			M2
		Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds	0.5mg/m ³ Total			M2
		Dioxins/Furans (I-TEQ)	0.1ng/Nm ³	Periodic over minimum 6 hours, maximum 8 hour period		M2

1. Or other frequency as agreed in writing by the Regulator

Table S3.2 Process monitoring requirements				
Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Final discharge stack	Oxygen (dry)	Continuous	BSEN 15267-3	CEMS to MCERTS standards
	Carbon Monoxide			
	Exhaust gas oxygen content (wet)			
Location close to the secondary combustion chamber inner wall	Temperature (°C)	Continuous	Traceable to national standards	CEMS to MCERTS standards

Table S3.3 Residue Quality					
Emission point reference or source or description of point of measurement	Parameter	Limit	Monitoring frequency ²	Monitoring Standard or method ¹	Other specifications
Incinerator bottom ash (IBA)	Loss on ignition (LOI)	5% w/w	Annual	Sampling and analysis as per Regulator ash sampling protocol	Cyclone collected ash to be reintroduced to primary chamber or to meet limits in this table
1. Or other equivalent standard as agreed in writing by the Regulator					
2. Or other frequency as agreed in writing by the Regulator					

Schedule 2 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this Permit, are listed below.

Tables S4.1, 4.2, 4.3

Table S4.1 Reporting of Monitoring data			
Parameter as required by condition 4.2.1	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air	A1	Annual	1 Jan.
Loss on Ignition (LOI)	Incinerator bottom ash (IBA)	Annual	1 Jan
Group I, Group II, and Group III metals and their compounds	Incinerator bottom ash (IBA)	Before use of a new disposal or recycling route	With new route.
Dioxins/furans and dioxin like PCBs			
Total soluble fraction for Group I, Group II and Group III metals and zinc and their compounds			

Table S4.2 Reporting of production/treatment		
Parameter	Frequency of assessment	Units
Clinical waste	Annually	Tonnes/kgs

Table S4.3 Reporting of performance parameters		
Parameter	Frequency of assessment	Units
Electrical energy used at the installation	As requested by the Regulator	KWhrs and KWhrs/tonne of waste incinerated
Fuel oil used		
IBA produced		
APC residues produced		Kg and Kg/tonne of waste incinerated
Activated carbon used		
Sodium bicarbonate used		m ³ and m ³ /tonne of waste incinerated
Water used		
Periods of CEMs invalidation	Annually	Hours and cumulative days in a year
Incinerator operating hours (excluding start-up and shut down)	Annually	Hours and cumulative hours for current year

Table S4.4 Reporting forms, or other forms as agreed in writing by the Regulator		
Media/parameter	Reporting format	Date of form
Air	Form Air 1 and 2	1 January and/or As requested by the Regulator
CEMs invalidation	Form Air 3	
Incinerator operating hours	Form Air 4	
Residues	Form Residues 1 and 2	
Energy usage	Form Energy 1	
Water and raw material usage	Form RM 1	
Waste disposal and recovery	Form R1	
Waste incinerated	Form T1	
Performance indicators	Form P1	

Schedule 3 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A	
Permit Number	LDC/SWIP/1/P1
Name of operator	Medipower Ltd
Location of Facility	Shed 4A Newhaven Port East Quay Newhaven East Sussex, BN9 0BN
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be submitted as soon as practicable	
Any more accurate information on the matters for notification under Part A	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 4 - Interpretation

"abatement equipment" means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

"accident" means an accident that may result in pollution.

"APC residues" means air pollution control residues

"application" means the application for this Permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Regulator under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"bi-annual" means twice per year with at least five months between tests;

"CEM" means continuous emission monitor.

"CEN" means European Committee for Standardisation.

"daily average" for releases of substances to air means the average of valid half-hourly averages over consecutive discrete periods of 24 hours as agreed by the Regulator during normal operation. Where the plant is operational for less than 24 hours, the daily average shall mean the average of all valid half-hourly averages provided the plant is operational for a minimum of 6 hours.

"dioxin and furans" means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans.

"disposal" means any of the operations provided for in Annex IIA of the Waste Framework Directive.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this Permit which are also used in the Regulations have the same meanings as in those Regulations.

"emissions to land" includes emissions to groundwater.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

"EWC Code" means the code number from the European Waste Catalogue.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Group I metals" means mercury (Hg).

"Group II metals" means Cadmium (Cd) and Thallium (Tl)

"Group III metals" means Antimony (Sb), Arsenic (As), Chromium (Cr), Cobalt (Co), Copper (Cu), Lead (Pb), Manganese (Mn), Nickel (Ni), and Vanadium (V)

"IBA" means incinerator bottom ash removed from the primary combustion chamber after burn-out is complete.

"ISO" means International Standards Organisation.

"LOI" means loss on ignition, a technique used to determine the combustible material by heating the ash residue to a high temperature

"oxides of nitrogen (NO_x)" means nitric oxide (NO) plus nitrogen dioxide (NO₂) expressed as NO₂

"MCERTS" means the Regulator's Monitoring Certification Scheme.

"management system" means Environmental Management System (EMS) complying with the Regulator's "Risk assessments for your environmental permit"

"monitoring" includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

"PAH" means Poly-cyclic aromatic hydrocarbon, and comprises Anthanthrene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[b]naph(2, 1-d)thiophene, Benzo[c]phenanthrene, Benzo[ghi]perylene, Benzo[a]pyrene, Cholanthrene, Chrysene, Cyclopenta[c,d]pyrene, Dibenz[ah]anthracene, Dibenz[a,i]pyrene, Fluoranthene, Indo[1,2,3- cd]pyrene, Naphthalene

"PCB" means Polychlorinated Biphenyl. Dioxin-like PCBs are the non-ortho and mono-ortho PCBs listed in the table below.

"shut down" means any period where the plant is being returned to a non-operational state and there is no waste being burned as described in the application or agreed in writing by the Regulator.

"start up" means any period, where the plant has been non-operational, after igniting the auxiliary burner until waste has been fed to the plant to initiate steady-state conditions as described in the application or agreed in writing by the Regulator.

"TOC" means Total Organic Carbon. In respect of releases to air, this means the gaseous and vaporous organic substances, expressed as TOC. In respect of Bottom Ash, this means the total carbon content of all organic species present in the ash (excluding carbon in elemental form).

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive (WFD)" means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (O.J. L312/3, 22.11.2008).

"Waste Incineration Directive (WID)" means Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste (O.J. L 332, 28.12.2000).

"year" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means:

- (a) in relation to gases from incineration and co-incineration plants other than those burning waste oil, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11 % dry.
- (b) where hazardous wastes are burned in an incineration or co-incineration plant and the emissions of pollutants are reduced by gas treatment, standardisation of the gas with respect to oxygen content shall be carried out only if the oxygen concentration measured over the same period exceeds the relevant oxygen content defined in conditions (a) above. In other cases, the measured emissions shall be standardised only for moisture, pressure and temperature.

For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (1-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing. When reporting on measurements of dioxins/furans and dioxin-like PCBs, the toxic equivalence concentrations should be reported as a range based on all congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum

TEF schemes for dioxins and furans					
Congener		1-TEF		WHO-TEF	
		1990	2005	1997/8	
			Humans/ Mammals	Fish	Birds
Dioxins					
2 3 7 8-TCOO	1		1	1	1
1 2 3 7 8-PeCDD	0.5		1	1	1
1 2 3 4 7 8-HxCDD	0.1		0.1	0.5	0.05
1 2 3 6 7 8-HxCDD	0.1		0.1	0.01	0.01
1 2 3 7 8 9-HxCDD	0.1		0.1	0.01	0.1
123 4 6 7,8-HpCDD	0.01		0.01	0.001	<0.001
OCDD	0.001		0.0003	-	-
Furans					
2 3 7 8-TCDF	0.1		0.1	0.05	1
1 2 3 7 8-PeCOF	0.05		0.03	0.05	0.1
2, 3 4 7 8-PeCOF	0.5		0.3	0.5	1
1,2 3 4, 7 8-HxCDF	0.1		0.1	0.1	0.1
1,2 3,7 8,9-HxCDF	0.1		0.1	0.1	0.1
1,2 3 6,7 8-HxCDF	0.1		0.1	0.1	0.1
2,3 4,6 7 8-HxCDF	0.1		0.1	0.1	0.1
1 2 3 4 6 7 8 HpCOF	0.01		0.01	0.01	0.01
1 2 3 4 7 8 9-HpCOF	0.01		0.01	0.01	0.01
OCOF	0.001		0.0003	0.0001	0.0001

Congener		WHO-TEF		
		2005	1997/8	
		Humans/ Mammals	Fish	Birds
Non-ortho PCBs				
3 4 4' 5'-TCB (81)		0.0001	0.0005	0.1
3 3' 4 4'-TCB (77)		0.0003	0.0001	0.05
3,3' 4 4' 5'-PeCB (126)		0.1	0.005	0.1
3 3' 4 4' 5 5'-HxCB(169)		0.03	0.00005	0.001
Mono-ortho PCBs				
2 3 3' 4 4'-PeCB (105)		0.00003	<0.000005	0.0001
2 3 4 4' 5'-PeCB (114)		0.00003	<0.000005	0.0001
2 3' 4 4' 5'-PeCB (118)		0.00003	<0.000005	0.00001
2' 3 4 4' 5'-PeCB (123)		0.00003	<0.000005	0.00001
2 3 3' 4 4' 5-HxCB (156)		0.00003	<0.000005	0.0001
2 3 3' 4 4' 5'-HxCB (157)		0.00003	<0.000005	0.0001
2 3' 4 4' 5,5'-HxCB (167)		0.00003	<0.000005	0.00001
2 3 3' 4,4',5,5'-HoCB (189)		0.00003	<0.000005	0.00001

End of Permit