

# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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Landmark Power Holdings Limited

Rhodesia Power  
High Grounds Road  
Rhodesia  
Worksop  
Nottinghamshire  
S80 3AT

### **Permit number**

EPR/TP3725SD

# Permit number **EPR/TP3725SD**

## Introductory note

### **This introductory note does not form a part of the permit**

This permit will allow the operator to operate:

- One or more medium combustion plant (MCP) between 1 and <50MWth but aggregated to <50MWth, and
- One Tranche B Specified Generator aggregated to <50MWth at a specified location; or

The details of the units and associated limits and monitoring requirements are specified in Tables S1.1 and S3.1.

This is a complex permit and air dispersion modelling was required.

The facility is a flexible power plant comprising 6 no. gas engines fuelled by natural gas. Four of the engines each have a net rated thermal input of 4.583MWth, with the other two each having a net rated thermal input of 2.844MWth. The latter two are combined heat and power (CHP) units. Each engine is a new medium combustion plant in accordance with Schedule 25A of the Environmental Permitting Regulations (EPR) and a Tranche B generator which, together, comprise a specified generator in accordance with Schedule 25B of the EPR.

The facility also includes 2 no. gas boilers fuelled by natural gas. Each boiler has a net rated thermal input of 2.999MWth and is a new medium combustion plant in accordance with Schedule 25A of the EPR.

The aggregated thermal net input of all the MCPs is 30.018MWth.

The purpose of the facility is to produce electricity for export to the grid, the 6 no. gas engines producing 9.1MWe of power for export under a capacity market agreement. There is a subsequent carbon capture element which will capture carbon dioxide from the flue gases from the combustion plant via amine absorption, and this is powered by a gas-fuelled CHP unit and the 2 boilers. The carbon capture unit will also produce 1.2MWe electricity for export to the grid. The stripped flue gases are emitted to atmosphere via two 18m high stacks, and the removed CO<sub>2</sub> is purified to food grade and compressed for storage and transport off site. The carbon capture process and emissions fall outside the MCPD and EPR.

Emissions from each of the 4 x 4.583MWth engines are emitted to atmosphere via 6.9m high stacks; emissions from each of the 2 x 2.844MWth engines emit to atmosphere via 6.4m high stacks; and emissions from each of the 2 boilers are emitted to atmosphere via 11.5m high stacks. The carbon emissions from the engines are captured and processed as described above.

The site is located adjacent to the village of Rhodesia near Worksop. There are no designated habitats within relevant screening distance of the facility.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application EPR/TP3725SD/A001	Duly made 14/08/2023	Bespoke application for MCP(s) and/or Specified Generators.
Permit determined EPR/TP3725SD	03/10/2023	Permit issued to Landmark Power Holdings Limited

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

EPR/TP3725SD

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**Landmark Power Holdings Limited** ("the operator"),

whose registered office is

**Riverbank House  
Putney Bridge Approach  
London  
SW6 3JD**

company registration number 12943542

to operate one or more Medium Combustion Plant and/or Specified Generators at

**Rhodesia Power Limited  
High Grounds Road  
Rhodesia  
Worksop  
S80 3AT**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
[REDACTED]	03/10/2023

Authorised on behalf of the Environment Agency

# Conditions

## 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, so far as is reasonably practicable, 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 sufficient 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.

## 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 (the "activities").

### 2.2 The site

- 2.2.1 No MCP shall be operated beyond the site of the grid reference specified for it in schedule 1, table S1.1 of the permit.

### 2.3 Operating techniques

- 2.3.1 The activities shall be operated using the techniques and in the manner described in schedule 1, tables S1.2A and S1.2B.

## 3 Emissions and monitoring

### 3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to air except from the sources and emission points listed in schedule 3, table S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.

### 3.2 Monitoring

- 3.2.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit, or at a greater frequency if notified to the operator in writing by the Environment Agency:
- (a) point source emissions specified in table S3.1.
- 3.2.2 Monitoring shall not take place during periods of start up or shut down.

- 3.2.3 The first monitoring measurements shall be carried out:
- (a) within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later.
- 3.2.4 Where secondary abatement is required to ensure compliance with the NO<sub>x</sub> ELV monitoring shall start 10 minutes from when the generator commences operation, or within 20 minutes when the generator was a Tranche A and is now a Tranche B generator.
- 3.2.5 The operator shall maintain records of all monitoring including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, test and surveys and any assessment or evaluation made on the basis of such data.
- 3.2.6 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme specified in condition 3.2.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **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 Environment Agency, for at least 6 years from the date when the records were made.
- 4.1.2 The operator shall maintain convenient access, in either electronic or hard copy, to the records, plans and management system required to be maintained by this permit.
- 4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation for each MCP and/or generator.
- 4.1.4 The operator shall maintain a record of any events of non-compliance and the measures taken to ensure compliance is restored in the shortest possible time

### **4.2 Reporting**

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, 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 4, table S4.1;
  - (b) for the reporting periods specified in schedule 4, table S4.1 and using the forms specified in schedule 4, table S4.2; and
  - (c) giving the information from such results as required by the forms specified in those tables.

### **4.3 Notifications**

- 4.3.1 In the event:

- (a) of a breach of any of the permit conditions the operator must immediately—
  - (i) inform the Environment Agency, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (b) of a breach of any of the permit conditions which causes a significant degradation of local air quality, the operator must immediately suspend the operation of the activities or the relevant part of them until compliance with the conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency 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 Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and
- (g) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

## 4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 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 "immediately", in which case it may be provided by telephone.

# Schedule 1 – Operations

<b>Table S1.1 activities</b>				
<b>National Grid Reference and or activity reference/ emission point</b>	<b>Activity listed in the EP Regulations</b>	<b>Description of MCP and/or specified generator</b>	<b>Fuel</b>	<b>Operating hours limit per year</b>
Genset G1 (A7) NGR SK56698 79499 Genset G2 (A6) NGR SK56704 79494 Genset G3 (A5) NGR SK56710 79490 Genset G4 (A4) NGR SK56715 79485 Genset G5 (A9) NGR SK56680 79445 Genset G6 (A8) NGR SK56686 79448	Schedule 25A – MCP as detailed in Schedule 7 and Schedule 25B – Specified generator	Genset 1 to 4: 4 x 4.583MWth engines  Genset 5 & 6: 2 x 2.844MWth engines  All the above have SCR abatement and carbon capture technology	Natural Gas	Not restricted
Genset G7 (A10) NGR SK56644 79444 Genset G8 (A11) NGR SK56642 79427	Schedule 25A – MCP as detailed in Schedule 7	2 x 2.999MWth boilers	Natural gas	Not restricted

<b>Table S1.2A Operating techniques for Medium Combustion Plant as detailed in Schedule 7</b>
<p>(a) Each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.</p> <p>(b) The operator must keep periods of start-up and shut-down of each MCP as short as possible.</p> <p>(c) There must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993..</p>

<b>Table S1.2B Operating techniques for Specified Generators</b>
<p>(a) Each generator must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.</p> <p>(b) The operator must keep periods of start-up and shut down of the generators as short as possible</p> <p>(c) There must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.</p> <p>(d) Where secondary abatement is required to ensure compliance with the NOx ELV it must be met within 10 minutes from when the generator commences operation or within 20 minutes when the generator was a Tranche A and is now a Tranche B generator.</p> <p>(e) Abatement Plant must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.</p> <p>(f) The stack must be vertical and unimpeded by cowls or caps.</p>

## **Schedule 2 – Waste types, raw materials and fuels**

This schedule is not used

## Schedule 3 – Emissions and monitoring

Emission point ref. & location	Source/technology	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method Note 1
Genset G1 (A7) Genset G2 (A6) Genset G3 (A5) Genset G4 (A4) Genset G5 (A9) Genset G6 (A8)	New medium combustion plant which are engines and gas turbines fuelled on natural gas and specified generator	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	95 mg/m <sup>3</sup>	Periodic	Every 3 years	MCERTS BS EN 14792
Carbon monoxide		No limit set	Periodic	Every 3 years	MCERTS BS EN 15058	
Genset G7 (A10) Genset G8 (A11)	New medium combustion plant other than engines and gas turbines fuelled on natural gas	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	100 mg/m <sup>3</sup>	Periodic	Every 3 years	MCERTS BS EN 14792
Carbon monoxide		No limit set	Periodic	Every 3 years	MCERTS BS EN 15058	

Note 1:  
Monitoring requirements are defined at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases at a standardised O<sub>2</sub> content of 6% for solid fuels, 15% for engines and gas turbines and 3% all other MCPs

## Schedule 4 – Reporting

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

<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Emissions to air Parameters as required by condition 3.2.1.	Genset G1 (A7) Genset G2 (A6) Genset G3 (A5) Genset G4 (A4) Genset G5 (A9) Genset G6 (A8) Genset G7 (A10) Genset G8 (A11)	4 months from date of issue of permit then Every 3 years	1 January

<b>Media/parameter</b>	<b>Reporting format</b>	<b>Date of form</b>
Air	Emissions to Air Reporting Form or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

## Schedule 5 – 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	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(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</b>	
<b>To be notified within 24 hours of detection</b>	
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>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the breach of permit conditions not related to limits</b>	
<b>To be notified within 24 hours of detection</b>	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

<b>(d) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“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 Environment Agency 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.

“combined heat and power” (CHP) or Cogeneration means the simultaneous generation in one process of thermal energy and electrical or mechanical energy.

“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.

“existing MCP” means an MCP first put into operation before 20/12/2018.

“first put into operation” means that the plant must have been fired with its design fuel up to its full load. This can be, but does not have to be, during commissioning.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“medium combustion plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“new MCP” means an MCP first put into operation on or after 20/12/2018.

“operating hours” means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“specified generator” has the meaning given in paragraph 2(1) of Schedule 25B of The EP Regulations.

“tranche A generator” has the meaning given in paragraph 3(3) of schedule 25B of The EP Regulations.

“tranche B generator” is any generator that is not a Tranche A generator.

“year” means calendar year ending 31 December.

## Schedule 7 – Annex 1 of MCPD

<b>1. Rated thermal input (MW) of the medium combustion plant.</b>	4 x 4.583MWth 2 x 2.844MWth 2 x 2.999MWth
<b>2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).</b>	6 x gas engines 2 x gas boilers
<b>3. Type and share of fuels used according to the fuel categories laid down in Annex II.</b>	8 x natural gas
<b>4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.</b>	Not yet commenced
<b>5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).</b>	6 x 35.11 2 x 35.3
<b>6. Expected number of annual operating hours of the medium combustion plant and average load in use.</b>	Unlimited. 6 x gas engines @ 100% average load 2 x gas boilers @ 70% average load
<b>7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.</b>	N/A
<b>8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.</b>	Operator: Landmark Power Holdings Limited Registered office address: Riverbank House Putney Bridge Approach London SW6 3JD MCP plant located at: Rhodesia Power Limited High Grounds Road Rhodesia Worksop S80 3AT

END OF PERMIT