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# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Nottingham City Council

London Road Heat Station 12 London Road Nottingham Nottinghamshire NG2 3AB

Variation application number

EPR/AP3444QW/V002

Permit number

EPR/AP3444QW

## London Road Heat Station Permit number EPR/AP3444QW

## Introductory note

#### This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The permit has been reviewed against the requirements of the Medium Combustion Plant Directive (MCPD) for 2025 and relevant conditions and monitoring requirements have been added.

The MCP plant consists of two existing medium combustion plants (MCP) which are: 2 x 23.443MWth Natural Gas fired boilers. The site also contains 1 mothballed coal boiler (Boiler 1 - 23.443MWth) and 2 coil boilers (each 2.465MWth), which all classify as existing MCP but have not been included as part of the MCPD review.

The changes made in the previous 25/09/2019 variation included:

- The addition of two coil boilers the gross rated thermal input of which is 4.930 MW (2 x 2.465MW). The installation would be considered as a Large Combustion Plant only if the currently mothballed coal boiler were to be recommissioned taking the aggregated total for the plant on site to greater than 50MWth. These two coil boilers would not be included in any aggregated total as they are less than 15MWth and would not need to be considered against the Large Combustion Plant Directive. In addition, the limits in the Medium Combustion Plant Directive do not apply as the plant will operate for no more than 500 hours per year. The proposed operating scenarios, which are not anticipated to be frequent, are as follows:
  - 1. Warming of high-pressure system including steam main between London Road Heat Station (LRHS) and Eastcroft Incinerator to allow LRHS to accept high pressure steam (start-up)
  - 2. Emergency backup for boiler 2 and 3 should either or both boilers not be able to operate at full capacity
  - 3. Emergency backup for the district heating network in times of excessive demand (very cold weather/exceptional levels of demand)

Therefore, no limit was set for these boilers.

- The variation of the reference period for the turbine cooling waters.
- The variation also acknowledges the discharge of heat to the atmosphere. An air cooled heat rejection condenser with two banks is located on the roof of the pump house building. The air heat rejection condensers have a small continuous flow of steam to keep them primed to allow the use of them at any time for safety reasons. During periods of hot weather the water cooled steam turbine condenser cannot provide sufficient cooling to allow the full operation of the steam turbine. Therefore, heat in the form of low pressure steam has to be rejected using the air cooled condensers.

The rest of the installation remains unchanged and operates as follows:

The installation is situated near central Nottingham, beside the Beeston to Nottingham Canal. It comprises a CHP plant for the generation of heat, steam and electricity and is part of the Nottingham District Heating Scheme. High-pressure steam is imported from the Eastcroft Incinerator which drives single steam turbine. The site also provides backup energy supply when steam from the Incinerator fails. There are two gas fired boilers, each of 23.443 MW gross rated thermal input, fed with treated water from a demineralization plant. A third boiler of the same capacity is currently mothballed and is available to be converted from coal to natural gas firing if required. The boilers discharge via individual flues from a stack with a common windshield. The installation is subject to the Large Combustion Plant Directive (see Pre-Operational Measure 3). Emissions consist of combustion gases, boiler blowdown and effluent from the demineralization process.

The site has an environmental management system which is certified to ISO 14001. The site is located within a flood plain, over a major aquifer (the Sherwood Sandstone), and lies close to an Air Quality Management Area for NO<sub>2</sub>. The nearest human occupation / presence is within 50m of the site and includes a hotel on the opposite bank of the canal. There are no SSSIs within a 2km radius, and no European designated habitats sites within 10 km of the installation.

The schedules specify the changes made to the permit.

We consider that in reaching our decision to vary the permit we have taken into account all relevant considerations and legal requirements. We are satisfied that the permit will ensure that a high level of protection is provided for the environment and human health and that the activities will not give rise to any significant pollution of the environment or harm to human health.

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

Status log of the permit	Status log of the permit				
Description	Date	Comments			
Application EPR/AP3730LT/A001	Duly made 31/03/2006				
Response to request for further information.	16/10/2006				
Permit determined EPR/AP3730LT	04/12/2006	Permit issued to Enviroenergy Limited.			
Variation determined EPR/AP3730LT/V002	21/12/2007	Implementation of the requirements of the National Emission Reduction Plan.			
Variation determined EPR/AP3730LT/V003	18/12/2015	Agency initiated variation to include pre- operational condition PO3 requiring the operator to produce evidence that the facility will operate in accordance with Chapter III of the Industrial Emissions Directive.			
Application EPR/AP3730LT/V004 (variation and consolidation)	Duly made 17/10/2018	Application to add two coil boilers and amend the reference period of the turbine cooling waters.			
Variation determined EPR/AP3730LT	25/09/2019	Consolidated variation issued to Enviroenergy Limited.			
Application EPR/AP3444QW/T001 (full transfer of permit EPR/AP3730LT)	Duly made 14/02/2022	Application to transfer the permit in full to Nottingham City Council.			
Transfer determined EPR/AP3444QW (Billing ref. AP3444AQ)	01/03/2022	Full transfer of permit complete.			

Status log of the permit				
Description	Date	Comments		
Application EPR/AP3444QW/V002 (variation and consolidation)	Regulation 61 Notice response received 07/08/2024	Environment Agency initiated variation and consolidation following Medium Combustion Plant permit review.		
Variation determined and consolidation issued EPR/AP3444QW	13/02/2025	Varied and consolidated permit issued		

End of introductory note

#### Notice of variation and consolidation

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

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

#### Permit number

EPR/AP3444QW

#### Issued to

Nottingham City Council ("the operator")

whose principal office is

Loxley House Station Street Nottingham NG2 3NG

to operate a regulated facility at

London Road Heat Station 12 London Road Nottingham Nottinghamshire NG2 3AB

to the extent set out in the schedules.

The notice shall take effect from 13/02/2025.

Name	Date
Kate Booth	13/02/2025

Authorised on behalf of the Environment Agency

#### Schedule 1

The following conditions were varied as a result of an Environment Agency initiated variation:

- Table S1.1 as referenced by conditions 2.1.1, 2.3.4 and 3.5.5 is amended to add details of MCP.
- S1.3 as referenced by condition 2.4.1 is amended to add completed dates for IC1, IC3, IC4 and IC5 and change the date for IC2.
- S3.1 as referenced by conditions 3.1.1, 3.5.1 and 3.5.4 is amended to update monitoring requirements for boiler 2 and 3.
- S4.1 as referenced by condition 4.2.3 is amended to add reporting requirements for MCPs.
- S4.4 as referenced by conditions 4.2.2 and 4.2.3 is amended to update the emissions to air reporting form to the current version.
- Schedule 6 as referenced by condition 4.4.1 is amended to include additional interpretations.

The following conditions are added following an Environment Agency initiated variation:

2.3.4, 3.5.5, 3.5.6, 4.1.3 and 4.3.7.

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

## **Permit**

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

#### Permit number

#### EPR/AP3444QW

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/AP3444QW/V002 authorising,

Nottingham City Council ("the operator"),

whose principal office is

Loxley House Station Street Nottingham NG2 3NG

to operate an installation at

London Road Heat Station 12 London Road Nottingham Nottinghamshire NG2 3AB

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

Name	Date
Kate Booth	13/02/2025

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:
  - 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 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.

## 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 disposal is necessary, this is undertaken in a manner which minimises 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 (the "activities").

#### 2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

## 2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that 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 Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 For MCPs specified in Schedule 1 Table S1.1:
  - (a) the operator must keep periods of start-up and shut down of the combustion plant as short as possible.
  - (b) there shall be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.

## 2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## 2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

## 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 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

#### 3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) 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 Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

#### 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 Environment Agency, 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 Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

#### 3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.5 Monitoring

- 3.5.1 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:
  - (a) point source emissions specified in tables S3.1 and S3.2;
  - (b) surface water specified 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), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 For MCPs specified in Schedule 1 Table S1.1:
  - (a) For existing MCP Monitoring measurements shall be carried out within four months of the issue date of this notice.
- 3.5.6 Monitoring of MCP shall not take place during periods of start-up or shut down.

## 3.6 Monitoring for Large Combustion Plant

- 3.6.1 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive and the Large Combustion Plant Best Available Techniques Conclusions.
- 3.6.2 Where required by a condition of this permit to check the measurement equipment, the operator shall submit a report to the Environment Agency in writing, within 28 days of the completion of the check.

#### 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, 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 Environment Agency.
- 4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual operating hours for each MCP.

## 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 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
  - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 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 S4.4; 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 Environment Agency, 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.

#### 4.3 Notifications

- 4.3.1 In the event:
  - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition 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;

- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit 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 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:

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

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) 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.
- 4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
  - (a) the Environment Agency shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.5 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.6 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
  - (a) a decision by the Secretary of State not to re-certify the agreement;
  - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
  - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.
- 4.3.7 The operator shall notify the Environment Agency, as soon as is practicable, in writing of any change of MCP at the specified location.

## 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**

Table S1.1 act	Table S1.1 activities				
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity		
AR1	S1.1 A1 (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	Combined heat and power (CHP) production of steam and electricity	From receipt of raw materials to despatch of products and waste — including discharge of exhaust gases and waste heat to the atmosphere.		
		2 x 23.443MWth natural gas fired boilers (Boilers 2 and 3) which are existing MCP	Boilers 2 and 3 unrestricted operating hours.		
		1 mothballed coal boiler (Boiler 1 - 23.443MWth)	Coil boilers not to be operated for more than 500 hours per annum each.		
		2 coil boilers – each 2.465MWth (Coil Boiler A and Coil Boiler B) which are existing MCP	Note 1		
	Directly Associated Activity				
AR2	-	Storage and handling of raw materials and wastes.	Receipt of raw materials and wastes from process areas to final dispatch of wastes.		
AR3	-	De-mineralised water production.	From receipt of untreated water to input of demineralised water to the process.		
AR4	-	Operation of systems for the supply of utilities and services such as electricity, steam and water.	Utilities and services systems as far as the Installation boundary.		

Note 1: Must not exceed 500 hours operation in a 12 month period as a rolling average over a 5 year period or operate for more than 750 hours in any single year.

Table S1.2 Operating techniques				
Description	Parts	Date Received		
Application	The response to section 2.1 and 2.2 in the application	04/04/07		
Application	Responses to questions 4 and 5.	Response dated 16/10/06		
Application EPR/AP3730LT/V004	Environmental Risk Assessment Non-Technical Summary Part c3 3a Monitoring of Emissions	17/10/18		
Additional information	Emission points reference and location plan – FE138/002	08/07/19		

Table S1.2 Operating techniques			
Description Parts Date Recei			
Additional information	Site air emission and vent location plan – FE0138/004	08/07/19	

Table S1.3 Ir	Table S1.3 Improvement programme requirements			
Reference	Requirement	Date		
IC1	The Operator shall submit to the Agency a written review of the methods of monitoring in use at the Installation. The review shall consider the application of recognised standards and methods of monitoring having regards to guidance produced by the Agency. Where MCERTS standards are applicable, the review shall contain a timetable for upgrading of monitoring arrangements to MCERTS standards.	Complete		
IC2	The Operator shall conduct a review of containment measures for bulk storage of liquids, including the effluent holding tanks, against the indicative BAT requirements given in the Environment Agency draft Combustion Guidance Note, July 2005 Section 2.2.9 and in the Pollution Prevention Guideline PPG02 "Above ground oil storage tanks". The Operator shall submit a written report to the Agency detailing any proposed improvements together with a timetable for their implementation.	28/02/2025		
IC3	The Operator shall submit a written site closure plan to the Agency, having regard to the Environment Agency draft Combustion Guidance Note, July 2005 Section 2.11.	Complete		
IC4	The Operator shall submit an Accident Management Plan to the Agency, having regard to the Environment Agency draft Combustion Guidance Note, July 2005 Section 2.8. This shall include, but not be limited to, consideration of the hazards, risks and techniques necessary to reduce the risks associated with release of firewater from the installation.	Complete		
IC5	The operator shall submit a written report to the Agency for approval, which details the proposed monitoring methodology and procedure for completing the surface water monitoring requirements contained in Table S4.4 of the permit.	Complete		

Table S1.4 Pre-operational measures for future development				
Reference	Reference Operation Pre-operational measures			
1	Boiler 1	The operator shall submit a written report to the Agency containing proposals for the conversion of boiler 1 to natural gas firing. Conversion of the boiler shall not proceed until the Agency's written approval of the proposals has been received.		

Table S1.4 Pre-operational measures for future development				
Reference	Operation	Pre-operational measures		
2	Boiler 1	Following conversion of the boiler to natural gas, the operator shall submit a written report to the Agency containing proposals for carrying out commissioning trials of the boiler. The trials shall include a monitoring programme for the boiler's emissions to air under a range of operating conditions and an environmental impact assessment of the boiler's emissions to air in combination with the emissions from the two existing boilers.  The Operator shall carry out the commissioning trials once the proposals have received written approval from the Agency. A written report shall be submitted to the Agency detailing the results and conclusions of the trials. The boiler shall not be operated until the Agency's written approval has been received following review of the latter report.		
3	Boiler 1	Operations shall not commence on the installation, until the operator has submitted a report in writing to the Environment Agency for approval, demonstrating compliance with the Large Combustion Plant BAT Conclusions document, published 17 <sup>th</sup> August 2017, and has obtained written approval from the Environment Agency.		

# Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels			
Raw materials and fuel description Specification			
Coal	Not permitted to be used.		

## Schedule 3 - Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method Note 3
Windshield1, Flue 1 marked as point A1 on the site plan in Schedule 7.	Boiler 1.	Oxides of Nitrogen (NO and NO2 expressed as NO2)	[Note 1]	Hourly average.	Monthly when boiler is in operation.	BS EN 15267-3 [Note 2]
Windshield1, Flue 2 marked as point A1 on the site plan in Schedule 7.	Boiler 2 operated on Natural Gas	Oxides of Nitrogen (NO and NO2 expressed as NO2)	200 mg/m <sup>3</sup>	Hourly average.	Monthly.	BS EN 15267-3 [Note 2]
		Carbon Monoxide	No limit set	Periodic	Annually from date of acceptance of first monitoring measurements under condition 3.5.5	MCERTS BS EN 15058
Windshield1, Flue 3 marked as point A1 on the site plan in Schedule 7.	Boiler 3 operated on Natural Gas	Oxides of Nitrogen (NO and NO2 expressed as NO2)	200 mg/m <sup>3</sup>	Hourly average.	Monthly.	BS EN 15267-3 [Note 2]
		Carbon Monoxide	No limit set	Periodic	Annually from date of acceptance of first monitoring measurements under condition 3.5.5	MCERTS BS EN 15058
Coil boiler flue marked as point A1 on the site plan in Schedule 7.	Boilers 4 and 5 (2 coil boilers).	Oxides of Nitrogen (NO and NO2 expressed as NO2)	No limit		Once every 500 hours of operation with a minimum frequency of once every three years	-

Note 1: Limit to be confirmed following completion of Pre-operation measure 2 in Table S1.4 of the permit.

Note 2: Certification to the MCERTS performance standards indicates compliance with BS EN 15267-3

Note 3: 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 O2 content of 6% for solid fuels, 15% for engines and gas turbines and 3% all other MCPs.

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on the site plan in Schedule 7; emission to the Nottingham and Beeston Canal.	Process effluent and cooling water.	pH.	Minimum of 5, maximum of 9.	Instantaneous.	Continuous.	BS6068-2.50
W1 on the site plan in Schedule 7; emission to the Nottingham and Beeston Canal.	Process effluent and cooling water.	Temperature.	Maximum of 30 °C.	Instantaneous	Continuous.	Calibrated digital thermometer (UKAS approved).
W1 on the site plan in Schedule 7; emission to the Nottingham and Beeston Canal.	Process effluent and cooling water.	Flow rate.		Instantaneous.	Continuous reported as hourly averages.	As determined through Improvement Condition IC1.
W2 on the site plan in Schedule 7; emission to the Nottingham and Beeston Canal.	Turbine cooling water	Temperature	Maximum of 30 °C. [Note 1]	Half hourly average.	Continuous.	Calibrated digital thermometer (UKAS approved).
W2 on the site plan in Schedule 7; emission to the Nottingham and Beeston Canal.	Turbine cooling water	Flow rate		Instantaneous.	Continuous reported as hourly averages.	As determined through Improvement Condition IC1.
W3 on the site plan in Schedule 7; emission to the Nottingham and Beeston Canal.	Uncontaminated surface water run-off to the Nottingham and Beeston Canal via an oil interceptor.					

Note 1: Temperature shall not exceed 32  $^{\circ}$ C for more than 175 hours per year and 30  $^{\circ}$ C for the remainder of the year.

Table S3.3 Surface water monitoring requirements				
Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Nottingham and Beeston Canal, upstream and downstream of the installation's discharge points W1 and W2 marked on the site plan in Schedule 2, at locations to be agreed in writing with the Agency.	Canal water temperature.	Weekly during the months April to September inclusive and once per month at other times.	As agreed with the Agency, through completion of Improvement Condition IC5.	In combination discharges W1 and W2 from the installation shall not cause the temperature of the receiving water to increase by more than 3 °C at the edge of the mixing zone, taken as Great Northern Close at NGR SK 5789 3932, when compared with the upstream unaffected temperature. The Operator shall notify the Agency in writing if the temperature of the canal exceeds 28 °C as a result of the discharge effects.

# Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen.	Windshield 1, Flue 1	Annually.	01/01/07
Oxides of nitrogen.	Windshield 1, Flues 4 and 5	Once every 500 hours of operation with a minimum frequency of once every three years.	25/09/19
Emissions to air (MCP) Parameters as required by condition 3.5.1.	A1 (MCPs) Windshield 1, Flues 2 and 3	Annually from date of acceptance of first monitoring measurements under condition 3.5.5.	1 January
pH.	W1	Quarterly.	01/01/07
Temperature.	W1, W2.	Quarterly.	01/01/07
Flow rate.	W1, W2.	Quarterly.	01/01/07

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Canal water temperature.	Upstream and downstream of the installation's discharge points W1 and W2 marked on the site plan in Schedule 2, at locations to be agreed in writing with the Agency.	Quarterly.	01/01/07

Table S4.2: Annual production/treatment		
Parameter Units		
Power generated	GWh	

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	
Total mass release of NO <sub>x</sub>	Annually	t/MWh	
Water usage	Annually	m <sup>3</sup>	
Gas usage	Annually	MJ	
Energy usage	Annually	MWh	

Table S4.4 Reporting forms			
Media/parameter	Reporting format	Date of form	
Water	Form water 1 or other form as agreed in writing by the Environment Agency	04/12/06	
Canal water	Form canal1 or other form as agreed in writing by the Agency	04/12/06	
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	04/12/06	
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	04/12/06	
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	04/12/06	
Point source emissions to 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	
	ny malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is pollution
To be notified within 24 hours of o	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 t	he breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

Parameter(s)

Limit

Emission point reference/ source

Measured value and uncertainty

Date and time of monitoring

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherw	rise specified below
Measures taken, or intended to be taken, to stop the emission	
Time periods for notification following detection of a brea	ach of a limit
Parameter	Notification period
(c) Notification requirements for the detection of any sign	nificant 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  Any more accurate information on the matters for	practicable
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	

<sup>\*</sup> 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.

"compliance date" means 01/01/2025 for existing MCPs with net rated thermal input of greater than 5MWth or 01/01/2030 for existing MCPs with a net rated thermal input of less than or equal to 5MWth.

"emissions to land" includes emissions to groundwater.

"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 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.

"existing medium combustion plant" means an MCP in operation before 20 December 2018.

"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.

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

"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.

"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.

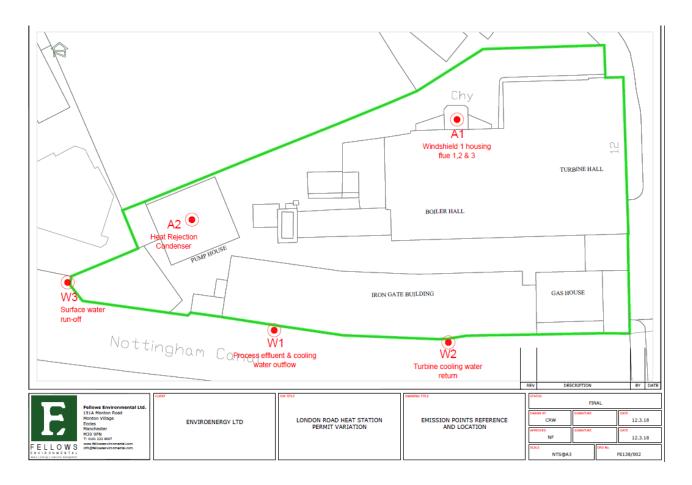
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

<sup>&</sup>quot;year" means calendar year ending 31 December.

# Schedule 7 – Site plan



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**END OF PERMIT**