

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Telehouse International Corporation of Europe Limited

Docklands Technical Centres

Coriander Avenue,
London, E14 2AA

1 Paul Julius Close, Blackwall Way,
Poplar, London, E14 2EH

Variation application number

EPR/EP3507SL/V002

Consolidated permit number

EPR/EP3507SL

Docklands Technical Centre

Permit number EPR/EP3507SL

Introductory note

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

The following notice gives notice of the variation of environmental permits A (EPR/EP3507SL) and B (EPR/SP3237JU) referred to in the status logs below and the replacement of those permits with a consolidated environmental permit.

The variation is for

- At Telehouse South - Replacement of 10 horizontal stack standby diesel generators with 4 new generators. The new generators will have vertical stacks and will be fitted with selective catalytic reduction (SCR) abatement for oxides of nitrogen reducing NOx emissions to approximately 235 mg/m³. Removal of gas boilers.
- Consolidation of the currently separately permitted Docklands data centre (Telehouse North EPR/SP3237JU), with Docklands Technical Centre (Telehouse South EPR/EP3507SL). The operation Telehouse North is unchanged by this variation.

The schedules specify the changes made to the permit.

Brief description of the process

The permit covers two data centres that although are on different sites form a single installation. The two sites are Telehouse South (TS) and Telehouse North (TN). Electrical power is provided to the data centre from the National Grid. However, in the event of a failure in the electrical supply, the operator will utilise emergency diesel generators to maintain operational resilience. The generators will be used solely for the purpose of generating power for the facility. No electricity will be exported from the installation.

The operator has an Environment Management System that covers the entire installation and is certified to ISO 14001.

Telehouse South

The site consists of 4 x 8.816 MWth diesel engines. The engines are fitted with SCR abatement to minimise emissions of oxides of nitrogen. Combustion gases are emitted via vertical 20m high stacks. Each engine has a belly tank for diesel storage and will be bunded to prevent accidental release of diesel. There is no process effluent discharge from the site. Uncontaminated water from roof and hard standing run off drain via interceptors to the public sewer.

Telehouse North

The site consists of 27 diesel engines with a total thermal input of 145 MWth. The diesel fuel is stored in bulk tanks located above and below ground. The below ground storage tanks are double skinned and the above ground tanks are single skinned. All diesel bulk storage tanks are bunded and have overflow indication and audible alarms. The storage day tanks each have high level alarms and auto shutoff devices. The only emissions to sewer from the site comprise of surface water run-off and occasional condensate discharges from clean water tank flushing, chiller systems and air conditioning units. There are no emissions to surface water or land.

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

Status log of permit A: EPR/EP3507SL		
Description	Date	Comments
Application EPR/CP3339DZ/A001	Duly made 08/11/2017	Application to operate standby diesel generators in the event of National Grid failure and maintenance activities.
Response to Schedule 5 Notice dated 25/01/18	09/03/2018	Best Available Technique (BAT) Options Assessment TR DTC V2 H5 Site condition Report TR DTC V2 Environmental Permit Compliance Manual TR DTC V2
Additional Information	06/09/2018	Site plan with green boundary
Additional Information	11/10/2018	Air Quality Controls TR DTC v1
Permit determined EPR/CP3339DZ	11/01/2019	Original permit issued Thomson Reuters Group Limited.
Application EPR/EP3507SL/T001 full transfer of permit EPR/CP3339DZ	Duly made 15/09/2020	Application to transfer the permit in full to Telehouse International Corporation of Europe Limited.
Additional Information	08/10/2020	Submission of final updated site plan.
Transfer determined EPR/EP3507SL	13/10/2020	Full transfer of permit complete.
Variation application EPR/EP3507SL/V002	Duly made 15/04/2024	Application to vary EPR/EP3507SL and consolidate with EPR/SP3237JU
Additional information received	02/05/2024	Clarify aspects of risk assessment
Additional information received	15/07/2024	Revised modelling including SCR warm-up periods
Response to schedule 5 notice issued on 18/09/2024	25/10/2024	Revised modelling with new testing regime

Variation and consolidation application number
EPR/EP3507SL/V002

Status log of permit A: EPR/EP3507SL		
Description	Date	Comments
Further information	11/12/2024	Revised modelling with new testing regime
Variation issued EPR/EP3507SL/V002	19/12/2024	Varied and consolidated permit issued

Status log of permit B: EPR/SP3237JU		
Description	Date	Comments
Application EPR/SP3237JU	Duly made 19/09/2018	Application to operate standby diesel generators in the event of National Grid failure and maintenance activities.
Additional information received	06/03/2019	Individual thermal inputs of the standby generators.
Additional information received	29/03/2019	Further detail on maintenance and testing scenarios.
Permit determined EPR/SP3237JU	24/04/2019	Permit issued to Telehouse International Corporation of Europe.
Variation application	Duly made 15/04/2024	Application to consolidate with EPR/EP3507SL
Variation issued	19/12/2024	Permit superseded by consolidation with EPR/EP3507SL

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 regulations 18 and 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates environmental permits

Permit numbers

EPR/EP3507SL
EPR/SP3237JU

Issued to

Telehouse International Corporation of Europe Limited (“the operator”)

whose registered office is

Coriander Avenue
London
E14 2AA

company registration number 02138407

to operate a regulated facility at

Docklands Technical Centres

1 Paul Julius Close
London, E14 2EH

Coriander Avenue,
London, E14 2AA

to the extent set out in the schedules.

The notice shall take effect from 19/12/2024

The number of the consolidated permit is EPR/EP3507SL.

Name	Date
Daniel Timney	19/12/2024

Authorised on behalf of the Environment Agency

Schedule 1 – changes in the permit

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

The following conditions were varied as a result of an Environment Agency initiated variation: Improvement condition TN IC4 added to table S1.3

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/EP3507SL

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/EP3507SL/V002 authorising,

Telehouse International Corporation of Europe (“the operator”),

whose registered office is

Coriander Avenue

London

E14 2AA

company registration number 02138407

to operate an installation at

Docklands Technical Centres

1 Paul Julius Close,

London, E14 2EH

Coriander Avenue,

London, E14 2AA

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

Name	Date
Daniel Timney	19/12/2024

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, 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;
- (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 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.

2.3.5 For the following activities referenced in schedule 1, table S1.1: AR1, the activities shall not operate for more than 500 hours in emergency use per annum.

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 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
- 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) Process monitoring 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 and S3.2 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 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; and
 - (b) at any time for existing MCPs, but no later than the relevant compliance date.

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.

4.2 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 performance parameters set out in schedule 4 table S4.2 using the forms specified in table S4.3 of that schedule.
- (c) where conditions 2.3.5 applies, the hours of operation in any year.

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 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, 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.

4.3.5 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.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 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.

4.4 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 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	Section 1.1 A(1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	<p>Operation of emergency standby generators burning gas oil solely for the purpose of providing electricity to the installation in the event of a failure of supply from the National Grid comprising; 4 x 8.816 MWth input at Telehouse South (TS).</p> <p>Operation of 27 emergency standby generators burning gas oil solely for the purpose of providing electricity to the installation in the event of a failure of supply from the National Grid comprising;</p> <ul style="list-style-type: none"> • 4 x 4.32 MWth • 2 x 4.28 MWth • 4 x 5.96 MWth • 2 x 6.805 MWth • 2 x 4.56 MWth • 3 x 4.28 MWth • 4 x 6.16 MWth • 3 x 5.37 MWth • 3 future generators (total thermal input of 19 MWth, individual thermal input as approved through pre-operational condition PO1) <p>standby generators with a total thermal input of 145 MWth at Telehouse North (TN).</p>	<p>From receipt of raw materials and generation of electricity to despatch of products and waste.</p> <p>Including selective catalytic reduction (SCR) systems fitted to emission points A1 to A4 according to the operating techniques specified in Table S1.2</p> <p>Generators shall only be operated for on-site emergencies and not for elective power generation, such as Balancing Services, Demand Side Response operations including Frequency Control Demand Management (FCDM) or Triad Avoidance.</p> <p>The emergency operating hours of the installation shall not exceed the specifications set out in condition 2.3.5 of this permit.</p> <p>Testing of engines is limited as follows:</p> <ul style="list-style-type: none"> - Testing shall not be carried out for longer than 4 hours per building for the northern campus (TN) and 8 hours for the southern campus building (TS), in any 24-hour period. - Testing shall not be carried out at more than two northern campus (TN) buildings, within any 24-hour period in which the southern campus building (TS) is also tested. - Testing shall not be carried out at both the North and West buildings within the same 24-hour period.
Directly Associated Activity			
AR2	Directly associated activity	Gas Oil storage	From receipt of raw materials to dispatch for use including all associated pipework,

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
			handling and transfer to and from storage tanks.
AR3	Directly associated activity	Surface water drainage	Input to site drainage system until discharge to surface water drain via interceptors.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Schedule 5 Notice Request dated 25/01/18	TR DTC Environmental Permit and Compliance Manual Issue 2.0, Feb 2018 which details site procedures to ensure permit compliance.	09/03/18
Additional information request dated	Air Quality Controls TR DTC v1	11/10/18
Application EPR/SP3237JU/A001	Part B2 and B3 of the application and all supporting documents.	Duly Made 19/09/2018
Application EPR/EP3507SL/V002	Response to section 3a – technical standards, Part C3 of the application form.	Duly Made 15/04/24
Additional information for EPR/EP3507SL/V002	Best Available Techniques and Operating Techniques document	02/05/2024
Additional information for EPR/EP3507SL/V002	NOx abatement efficiency for the selective catalytic reduction systems (SCR) fitted to Telehouse South emission points A1 to A4 detailed in application document 'Air Emissions Risk Assessment'	15/07/24
Response to schedule 5 notice for EPR/EP3507SL/V002	Updated testing schedule for Telehouse South (TS)	25/10/2024
Response to improvement condition	Updated testing regime and operating techniques as agreed with the Environment Agency through improvement condition TN IC4	Date of completion of TN IC4

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
Improvement conditions for Telehouse South		
TS IC1	<p>The operator shall produce an Air Quality Management Plan outlining the response measures to be taken in the event of a grid failure. This should include but not be limited to the following considerations:</p> <ul style="list-style-type: none"> • Regard for the pressures on the local Air Quality Management Area, including liaison with the Local Authority. • Regard for the predicted potential impact indicated by the air dispersion modelling at individual receptors; • Specific timescales for response measures; • Regard for how local conditions during a grid failure might influence the response required, for example meteorological conditions or time of day; • Contingency for how the response will be carried out in the event scenario i.e. loss of power; and • Timescales for continued review of the management plan. <p>The Air Quality Management Plan shall be submitted to the Environment Agency for approval prior to implementation.</p>	Complete
TS IC2	<p>The operator shall undertake a full appraisal, including cost/benefit analysis, of the practicable, technical and economic feasibility of increasing the emission point stack heights and/or orientation, as outlined by the scenario in the air dispersion modelling.</p> <p>A report detailing this appraisal shall be submitted to the Environment Agency for review. Where development is identified to be practicable, as well as technically and economically feasible; the report shall contain a schedule of works, with timescales for completion</p>	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
TS IC3	<p>Performance of SCR systems</p> <p>The operator shall submit a written report to the Environment Agency for assessment and written approval. The report must contain:</p> <ul style="list-style-type: none"> - Detailed information on the specification of the suitability of the NOx sensors and urea solution dosing to the SCR systems - Evidence of the initial calibration of the NOx sensors and verification of the levels of unabated and abated NOx emissions upstream and downstream of the SCR system according to a methodology consistent with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5) - Confirmation that the SCR systems achieve the NOx abatement performance stated in the application documents referred to in table S1.2, or a proposal for remedial actions when this is not achieved - A plan to periodically calibrate the NOx sensors and verify the performance of the SCR systems, including the proposed frequencies. <p>The operator must implement the proposals in the report in line with the timescales agreed within the Environment Agency's written approval.</p>	<p>Within 3 months from the date of issue of the variation EPR/EP3507SL/V002 or as agreed in writing with the Environment Agency</p>
Improvement conditions for Telehouse North		
TN IC1	<p>The operator shall produce an Air Quality Management Plan in conjunction with the Local Authority outlining response measures to be taken in the event of a grid failure. This should include but not be limited to the following considerations:</p> <ul style="list-style-type: none"> • the response should be tailored to reflect the predicted potential impact indicated by the air dispersion modelling at individual receptors; • specific timescales for response measures; • how local conditions during a grid failure might influence the response required, for example meteorological conditions or time of day; • contingency for how the response will be carried out in the event scenario i.e. loss of power; and • timescales for continued review of the management plan. <p>The agreed Air Quality Management Plan shall be submitted to the Environment Agency for approval.</p>	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
TN IC2	<p>The operator shall produce a report outlining the maintenance and operating regime following the first year of operation following permitting. This shall include but is not limited to the following points:</p> <ul style="list-style-type: none"> • reduce routine operating hours to less than 50 hours per year, per SBG; • a justification for not reducing the operating hours if this isn't put in place; and • any additional improvements that have been identified to reduce emissions during the maintenance testing and operation of the generators. This should include timescales for the implementation of the improvements. <p>The operator shall submit this report in writing to the Environment Agency for approval.</p>	Complete
TN IC3	<p>The operator shall undertake an investigation into the following two proposals:</p> <ul style="list-style-type: none"> • installing an oil interceptor on the surface water drainage system around the North Building; and • diverting the surface water runoff around the North Building via an existing oil interceptor. <p>A report should be produced outlining which option they will proceed with, justification for why it is the most appropriate method and the timescales for the implementation.</p> <p>The operator shall implement the proposals as agreed in writing with the Environment Agency.</p>	Complete
TN IC4	<p>Short-term nitrogen oxide concentrations</p> <p>The operator shall submit a written review to the Environment Agency for approval of options to reduce short term impacts at nearby receptors due to emissions of oxides of nitrogen. The review shall take into account the environmental standards for NO₂ and NO, and the AEGL-1 for NO₂.</p> <p>This shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> • Revised testing programme • Stack height of configuration • Retrofitting abatement • Replacement engines with lower emissions <p>The review shall include an updated risk assessment to show the effect on impacts of each option.</p> <p>The review shall also include proposals for which measures will be implemented along with timescales for implementing.</p> <p>Any agreed proposals shall be implemented by the operator in line with the timescales approved by the Environment Agency.</p>	Within 12 months from the date of issue of the variation EPR/EP3507SL/V002

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
Improvement conditions that apply to whole site		
IC5	<p>Monitoring plan - flue gas monitoring requirements</p> <p>The operator shall submit a monitoring plan for approval by the Environment Agency detailing their proposal for the implementation of the flue gas monitoring requirements specified in table S3.1, in line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 16 February 2021 (formerly known as TGN M5). The plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> • When the generators are not fitted with sampling ports, a proposal to install them within the shortest practical timeline; <p>Details of any relevant safety, cost and operational constraints affecting the monitoring regime, in support of any proposed deviation from the testing regime specified in permit table S3.1.</p>	<p>Within 3 months from the date of issue of the variation EPR/EP3507SL/V002</p>
IC6	<p>Air Quality Management Plan (AQMP)</p> <p>The operator shall produce an Air Quality Management Plan that covers Telehouse North and South, outlining the response measures to be taken in the event of a grid failure. This should include but not be limited to the following considerations:</p> <ul style="list-style-type: none"> • Regard for the pressures on the local Air Quality Management Area, including liaison with the Local Authority. • Regard for the predicted potential impact indicated by the air dispersion modelling at individual receptors; • Specific timescales for response measures; • Regard for how local conditions during a grid failure might influence the response required, for example meteorological conditions or time of day; • Contingency for how the response will be carried out in the event scenario i.e. loss of power; and • Timescales for continued review of the management plan. <p>The Air Quality Management Plan shall be submitted to the Environment Agency for approval prior to implementation.</p>	<p>Within 6 months from the date of issue of the variation EPR/EP3507SL/V002</p>

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
PO1	Installation of additional standby generators (identified as N2-5, N2-6 and W1-5 in application EPR/EP3507SL/V002	<p>The operator shall undertake a review of the final detailed design/plans for the new standby generators prior to construction to ensure that:</p> <ol style="list-style-type: none"> 1. the final design will meet the requirements of BAT; 2. the application still accurately reflects the final operating proposals; and 3. the environmental impact assessment still accurately reflects the predicted impacts from the proposal. <p>The operator shall submit a written report to the Environment Agency for approval, 6 months prior to construction of any additional standby generator(s), detailing the findings of this review.</p>
PO2	Operation off new 4 x 8.816 MWth generators TS-1 to TS-4	<p>Commissioning</p> <p>At least one month before operation the operator shall submit a commissioning plan to the Environment Agency for approval. The plan shall provide timescales for the commissioning of the diesel generators and shall demonstrate that the commissioning of the diesel generators is covered within the site's permitted regular testing regime, thereby minimising durations and impacts.</p> <p>When the commissioning is not covered within the site's permitted regular testing regime, the operator shall submit an environmental risk assessment for approval by the Environment Agency, demonstrating that the environmental risks during the commissioning are minimised and remain not significant. The commissioning of the engines shall not begin prior to receiving written approval to the plan and associated environmental risk assessment by the Environment Agency.</p> <p>The plan shall be implemented in accordance with the Environment Agency's written approval.</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Gas oil or equivalent substitute to be agreed in writing with the Environment Agency	Not exceeding 0.001% w/w sulphur content

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 [note 2]	Monitoring standard or method			
Emission from Telehouse South									
A28 to A31 Shown as TS1 to TS4 on drawing 002B in application EPR/EP3507SL/V002	Exhausts of back up diesel generators TS-1 to TS-4 located at Data centre Telehouse South 4 x 8.816 MWth (new medium combustion plant)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)	Every 1500 hours of operation or once every five years (whichever comes first). [Note 1]	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)			
		Carbon monoxide							
		Sulphur dioxide					-	-	-
		Particulates					-	-	-
		Ammonia					-	-	-

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 [note 2]	Monitoring standard or method
Emission from Telehouse North						
A1 to A6 and A11 to A15 Shown on drawing 002A in application EPR/EP3507SL/V002	Exhausts of back up diesel generators N-1 to N-6 in North Building (4x 4.32 MWth 2 x 4.28 MWth) and E1 to E5 in East Building (2 x 4.56 MWth 3 x 4.28 MWth) (existing medium combustion plant with net rated thermal input of less than 5MW)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)	Every 1500 hours of operation or once every five years (whichever comes first) from date of acceptance of first monitoring measurements under condition 3.5.5. [Note 1 & note 3]	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)
		Carbon monoxide				
		Sulphur dioxide				
		Particulates				
A7 to A10, A16 to A19 and A21 to A23 Shown on drawing 002A in application EPR/EP3507SL/V002	Exhausts of back up diesel generators N2-1 to N2-4 in North Building 2 (4 x 5.96 MWth) and generators W1-1 to W1-4 and W1-6 to W1-8 in West Building (4 x 6.16 MWth 3 x 5.37 MWth)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)	Every 1500 hours of operation or once every five years (whichever comes first) from date of acceptance of first monitoring measurements under condition 3.5.5. [Note 1]	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)
		Carbon monoxide				

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 [note 2]	Monitoring standard or method
	(existing medium combustion plant with net rated thermal input of greater than 5MW)	Sulphur dioxide		-	-	-
		Particulates		-	-	-
A26 and A27 Shown on drawing 002A in application EPR/EP3507SL/V002	Exhausts of back up diesel generators N2-7 and N2-8 in North Building 2 2 x 6.805 MWth (new medium combustion plant)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)	Every 1500 hours of operation or once every five years (whichever comes first). [Note 1]	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)
		Carbon monoxide				
	Sulphur dioxide	-		-	-	
	Particulates	-		-	-	

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 [note 2]	Monitoring standard or method			
A24, A25, A20 (future generators) Shown on drawing 002A in application EPR/EP3507SL/V002	Exhausts of back up diesel generators N2-5 and N2-6 in North Building 2 and generator W1-5 in West Building [total thermal input of 19 MWth, individual thermal input as approved through pre-operational condition PO1] (new 'medium combustion plant)	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)	Every 1500 hours of operation or once every five years (whichever comes first). [Note 1]	In line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 20 March 2024 (formerly known as TGN M5)			
		Carbon monoxide							
		Sulphur dioxide					-	-	-
		Particulates					-	-	-
Vents from tanks	Storage tanks	No parameters set	No limit set	-	-	No Permanent access required			
<p>Note 1: Unless otherwise agreed in writing with the Environment Agency as a result of approval of Improvement Condition IC5 of this permit.</p> <p>Note 2: In accordance with condition 3.5.5 of this permit.</p> <p>Note 3: Monitoring applies from 01/01/2030, which is the relevant MCPD compliance date for existing MCP sized between 1-5MWth</p>									

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
Emission points to offsite surface water drain via interceptor as shown in Figure 2 'Fuel Storage Appraisal TR DTC V1 dated 09/03/18 from application EPR/CP3339DZ/A001	Clean and uncontaminated site surface water from Telehouse South	No parameter set	No limit set	-	-	-
Emission points W1 – W6 (as shown on Site Layout & Emission Points, Drawing 002, June 2018 from application EPR/SP3237JU/A001)	Clean and uncontaminated site surface water. Discharges from clean water tank flushing, chiller systems and air conditioning units, from Telehouse North	No parameter set	No limit set	-	-	-

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
A28 – A31 (TS1 to TS4 at TS)	SCR abatement efficiency	Continuous	Continuous reading of NOx sensors fitted to SCR system to manufacturer's specification. Periodic validation according to the plan approved by the Environment Agency in response to pre - operational condition PO2	Minimum abatement of NOx, in accordance with operating techniques in application documents listed in table S1.2

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
Emissions to air from TS site Parameters as required by condition 3.5.1.	A28 to A31	Every 1500 hours of operation once or every five years (whichever comes first).	Within four months of the issue date of the permit or the date when the engine is first put into operation, whichever is later. Note 1
Emissions to air from TN site Parameters as required by condition 3.5.1.	A1 to A6 and A11 to A15	Every 1500 hours of operation once or every five years (whichever comes first)	From date of acceptance of first monitoring measurements under condition 3.5.5 Note 1 & Note 2
	A7 to A10, A16 to A19, A21 to A23	Every 1500 hours of operation once or every five years (whichever comes first)	From date of acceptance of first monitoring measurements under condition 3.5.5. Note 1
	A26, A27, A24, A25, A20	Every 1500 hours of operation once or every five years (whichever comes first).	Within four months of the issue date of the permit or the date when the engine is first put into operation, whichever is later. Note 1
Process monitoring Parameters as required by condition 3.5.1	A28 to A31 at Telehouse South	Annually	January
<p>Note 1: Unless otherwise agreed in writing with the Environment Agency as a result of approval of Improvement Condition IC5.</p> <p>Note 2: Monitoring applies from 01/01/2030, which is the relevant MCPD compliance date for existing MCP sized between 1-5MWth</p>			

Table S4.2: Annual production/treatment	
Parameter	Units
-	-

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Fuel usage	Annually	Tonnes
Generator operation for testing and maintenance	Report to be submitted annually	Total hours for the site (hours), Total hours per generator (hours), Total number of runs per generator (quantity) Number of minutes per run (minutes)
Generator operation during emergency scenario	Within 24 hours if operation commences	Date and time of grid failure, Number of generators operating immediately after the failure, Number of generators operating two hours after failure, Anticipated duration of the mains supply failure (hours)
Generator operation during emergency scenario	Annually	Total number of runs (quantity), duration of runs (hours)
Operation of SCR systems	Annually	<ul style="list-style-type: none"> - Gas oil usage in each generator fitted with SCR - Readings of NOx sensors - NOx abatement efficiency - Evidence of periodic calibration with frequency specified according to Environment Agency's approval of improvement condition TSIC3

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Emissions to Air Reporting Form or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	07/01//2019
Generator operation during emergency scenario	Form 'emergency scenario' or other form as agreed in writing by the Environment Agency	07/01/2019
Process monitoring Parameters	Process Monitoring Form, or other form as agreed in writing by the Environment Agency	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	

(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	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	
Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(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	
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.

“calendar monthly mean” means the value across a calendar month of all validated hourly means.

“CEN” means Comité Européen de Normalisation.

“Combustion Technical Guidance Note” means IPPC Sector Guidance Note Combustion Activities, version 2.03 dated 27th July 2005 published by Environment Agency.

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

“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.

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

“gas oil” includes diesel and is defined in Article 3(19) of the MCPD.

“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 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.

“Natural gas” means naturally occurring methane with no more than 20% by volume of inert or other constituents.

“Net rated thermal input” means the rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel and expressed as megawatts thermal.

“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.

Pests” means Birds, Vermin and Insects.

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

“SI” means site inspector.

“shut-down” is any period where the plant is being returned to a non-operational state.

“start-up” is any period, where the plant has been non-operational, until fuel has been fed to the plant to initiate steady-state conditions.

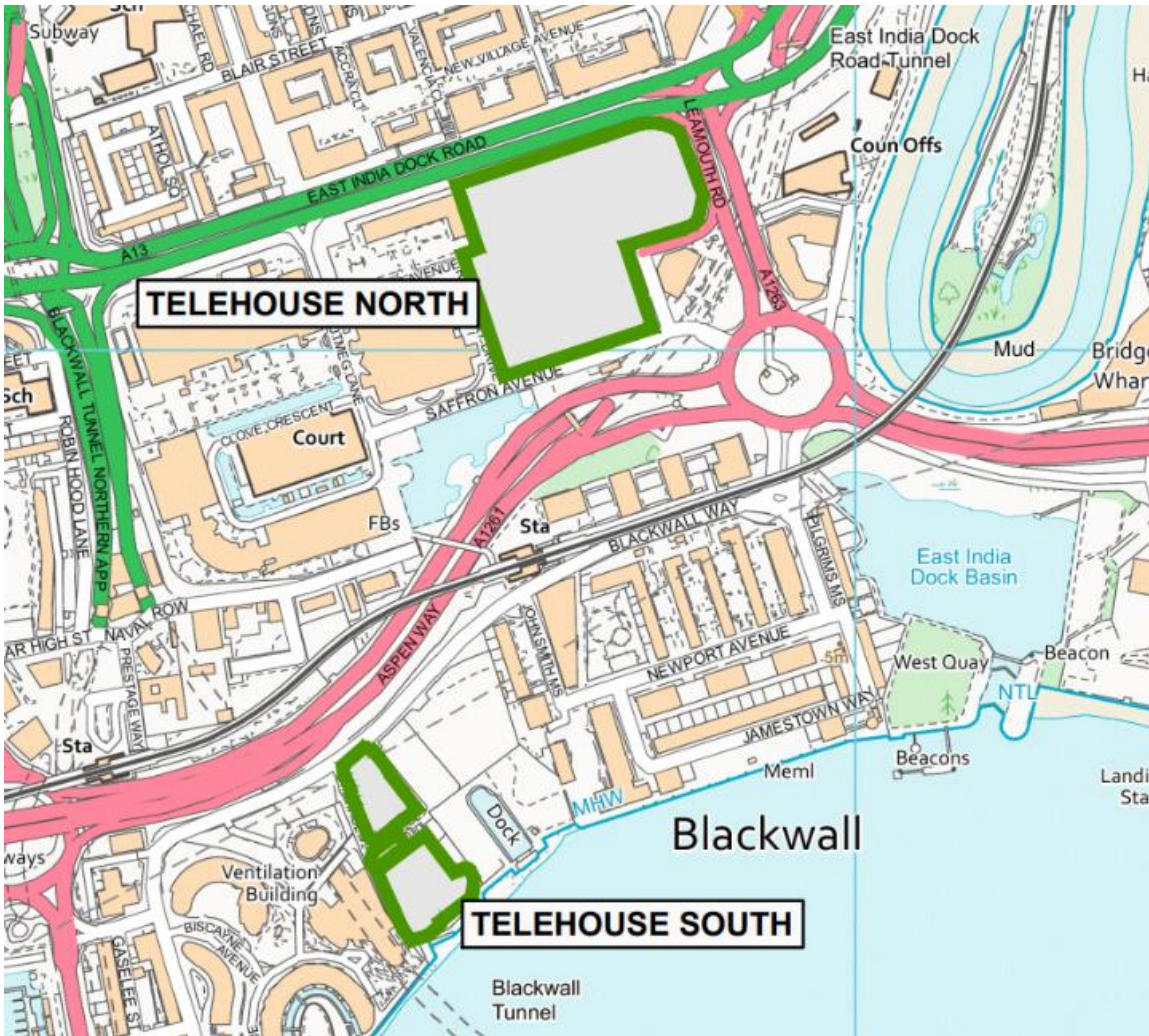
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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, 6% dry for solid 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.

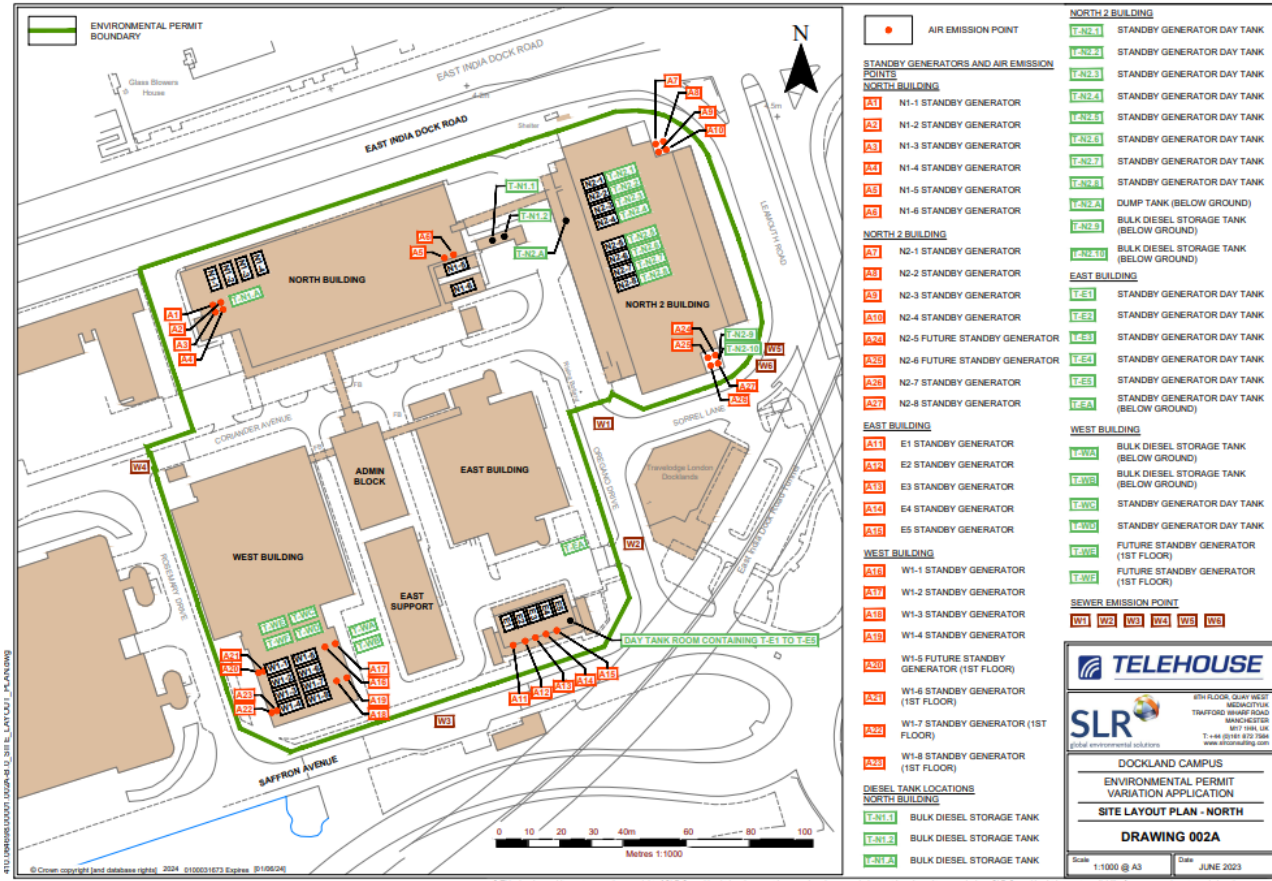
“year” means calendar year ending 31 December.

Schedule 7 – Site plans

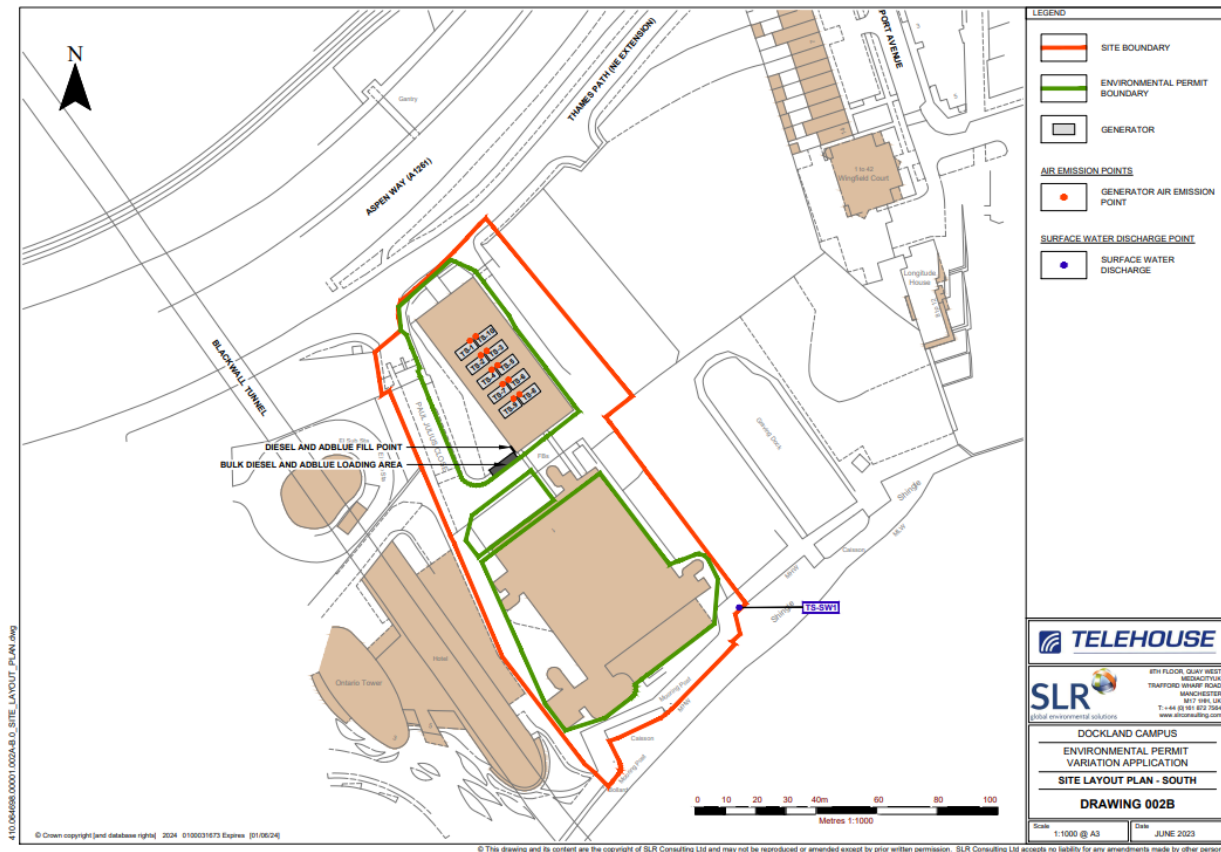


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Telehouse North



Telehouse South



END OF PERMIT

Permit number
EPR/EP3507SL