Permitting decisions

Bespoke permit

We have decided to grant the permit for Telehouse Docklands Datacentre operated by Telehouse International Corporation of Europe Limited.

The permit number is EPR/SP3237JU.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account
- shows how we have considered the consultation responses.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit. The introductory note summarises what the permit covers.

Key issues of the decision

Description of the installation

The site is an existing data centre which consists of a Section 1.1 Part A(1) (a) activity under the Environmental Permitting Regulations for the burning of any fuel in an appliance with a rated thermal input of 50 megawatts or more. The installation also includes a Directly Associated Activity (DAA) for diesel bulk storage tanks, accompanying pipe work and fill points.

The combustion plant currently comprises 19 diesel fuelled standby generators (SBG), with space for the installation of a further 8 SBGs. We have considered all 27 SBGs during the determination of this permit. The aggregated total rated thermal input (under standby power operating conditions) is approximately 145MWth. No electricity will be exported from the installation.

The site has the capacity for the storage of 383,440 litres of diesel fuel. Diesel storage tanks are located above and below ground and the Applicant has confirmed they are compliant with the Oil Storage Regulations. See storage and containment section below for further information.

Each SBG has a dedicated stack to aid the dispersion of the engine flue gases. The stack release heights for each building areas follows; North – 39.1m x 6 stacks, East Building – 27.3m x 5 stacks, West Building – 28.5m x 4 stacks (with a future additional 4 stacks) and North 2 Building – 62.0m x 4 stacks (with a future additional 4 stacks).

The SBGs are designed and configured so that in the event of a mains failure all the generators will fire up then subsequently ramp down to meet the load demand at the site. Even in a worst case blackout scenario, whilst all 27 SBGs would start up they will not operate at full capacity. The operational capacity of the generators at the time of a blackout would be dependent on extent of blackout.

All the generators are subject to a testing schedule which is as follows:

- 3 monthly testing – off-load testing during maintenance. 1 hour per test every 3 months, equates to 4 hours total per generator per year.
- Annual UPS wrap around maintenance - 4 hours per test every 3 months (except West building which has 10 hours per test). 16 hours per generator per year (40 hours for generators in West Building).
- Part load tests - six times per year, 2 or 4 hours per test per generator. 24 hours per generator per year.
- Non routine operation – 3 monthly Black Building Tests, where the generators are started, synchronised and take the associated building load. 4 hours per test every 3 months, equates to 16 hours total per generator per year.

The planned generator testing and maintenance involves all SBGs in the building running at the same time. Each building is scheduled to occur at separate times during the month to limit the generation of emissions to air.

During normal operation (i.e. limited to testing/maintenance), the SBGs will each operate for approximately 60 hours (84 hours for West Building) per year. This is considered to be a worst case scenario, and Telehouse aims to reduce these operating hours more typically to 50 hours or less per year.

The site is located on Coriander Avenue within the Docklands area of London. The National Grid Reference for the site is TQ 38770 81090. The site is approximately 2.6 hectares in size. The surrounding area is predominantly commercial and residential in use.

There are no point source emissions to surface water associated with the operation of the SBGs or fuel storage. Emissions of aqueous wastes from the site is limited to surface water run-off and sanitary effluent and occasional condensate discharges from clean water tank flushing, chiller systems and air conditioning units. Surface water runoff discharges to sewer via the site's surface water and foul water drainage systems. Oil interceptors are present on the surface water drainage system serving on site roads, car parking and tank refuelling areas.

Site Condition Report

A site condition report (SCR) was submitted with the application, it includes information on the previous land use and details of the geological setting of the site.

Historic land use maps indicate that the site and surrounding area has had various industrial uses associated with shipping (East Dock) and road and rail warehousing. The site formed the eastern end of the East Dock between approximately 1803 and the mid 1980's. The 8.5 metre deep East Dock was partly filled from the west after World War II, with infilling completed in 1987-8 (the nature of material used to infill the former dock is unknown). The North building at the site was constructed in 1989 and the site has been developed in successive stages since this date in three phases. The east and supporting areas were developed in the early 2000s, the west was developed in the late 2000s and the second northern development occurred in 2014.

The underlying bedrock is a sedimentary combination of clay, silt and sand of the London Clay Formation, which is classified as an unproductive aquifer. Geological maps show the bedrock is overlain by Alluvium, which are classified as a Secondary (undifferentiated) Aquifer. Areas of made ground and infill are also suspected across the site based on historical land uses, these areas may have higher permeability. The installation does not lie within a groundwater source protection zone.

There are a number of surface water features within 500 metres of the installation boundary. The River Lea, a tributary to the River Thames, is located approximately 130 metres east of the site (at its nearest point). The River Thames is located approximately 360 metres to the south of the installation (at its nearest point), with the adjoining East India Dock Basin approximately 190 metres to the south east of the site. An artificial pond is located approximately 15 metres to the south west of the site, with further ponds approximately 130 metres to the west.

The majority of the site is situated in Flood Zone 2 (areas at risk of flooding during an extreme rainfall event, or between a 1 in 100 and 1 in 1,000 annual probability of river flooding). The north of the site is within Flood Zone 3 (a high risk category due to the risk of alluvial flooding). Both the River Lea and The River Thames benefit from flood defences.

There are no recorded pollution incidents within the site boundary that may have affected the land beneath the site. However, due to the long industrial nature of the site it is likely that historic contamination may exist. The SCR therefore included a report on the baseline conditions. The site investigation was undertaken in spring 2018 to provide a baseline report for the whole installation. Previous investigations had been limited to the development of new buildings only. Intrusive ground investigation was conducted between 19 April 2018 and 24 April 2018. Groundwater and gas monitoring was then carried out on 30 April 2018, with follow up gas monitoring rounds conducted on 8 May 2018 and 16 May 2018. Six boreholes were investigated. The site investigation revealed that there were no significantly elevated concentrations of any of the determinands in soil samples, with the exception of asbestos which was found in boreholes BH1, BH2 and BH5. The groundwater monitoring revealed that BH2 and BH6 exhibited exceedances of Arsenic and Petroleum Hydrocarbons. The average concentrations of Petroleum Hydrocarbons, Arsenic, and Naphthalene were also in exceedance of Water Quality Standards. Methane and Carbon Dioxide is recorded in low levels during monitoring of gases beneath the site.

Air Quality

The installation is situated with an Air Quality Management Area (AQMA) for nitrogen dioxide (NO_2) and particulates (PM_{10}). The primary pollutant of concern to air quality is NO_2 resulting from the combustion process on site. The Applicant has submitted an air dispersion modelling report which assesses the potential impact of emission of NO_2 from the generators on local air quality.

We have audited the air dispersion modelling and report submitted with the application. Both the maintenance testing and emergency scenarios within the modelling were assessed. The engines will be operated under:

- Scenario 1: routine operations following the standard operating procedure (SOP) for the testing and maintenance of the generators (maintenance testing).
- Scenario 2: electrical grid outage operations, an emergency response mode limited to 500 hours as outlined in the Industrial Emissions Directive (IED) (emergency scenario).

The air dispersion modelling was based on the new additional 8 SBGs being 2g TA-Luft (or equivalent standard) or an equivalent NOx emission concentration of 2000 mg/m^3. Therefore a pre-operational measure for future development has been set requesting them to submit a report on the final design and that the environmental impact assessment is still valid.

Maintenance testing

The Applicant has modelled continuous operation for the maintenance scenario, regardless of 'no load' and 'part load' tests, which represents a worst case approach.

The process contribution (PC) exceeds the short term human health environmental quality standard (EQS) for NO_2 at the majority of the receptor locations. Therefore, cannot be considered insignificant in that the PC is > 10% of the short term EQS. The predicted environmental contribution (PEC) is not predicted to exceed 100% of the short term EQS at any of the receptor locations and can be considered unlikely to give rise to significant pollution.

The long term NO_2 emissions can be screened out as insignificant as the PC is < 1% of the long term EQS at all receptor locations.

There are no predicted exceedances of the annual mean NO_2, short term NO_2 critical levels or nutrient and acid deposition critical loads at any of the ecological receptors.

Emergency scenario

The Applicant has modelled 500 hours as a worst case scenario for full loss of power. The assessment indicates that the emergency scenario could pose a risk to local air quality at identified receptors for short term and long term NO_2.

However, outages lasting for 500 hours is very unlikely. This can be considered to be the case for this installation due to the site being served by six incoming feeds from the National Grid. Furthermore, the Applicant confirmed that they have not had any black out or brown outs of the local transmission system, which has required the use of all the SBGs, since the site began operations with the North building in 1989.

A more realistic emergency scenario would be 120 hours (5 days), in line with other datacentres. We consider it unlikely, based on the history of the site and reliability of the National Grid supply, that the cumulative hours of electrical outage would be greater than this. Although we cannot rule out an exceedance of the NO_2 EQS it is unlikely that the worst predicted emissions will coincide with the worst meteorological conditions and therefore subsequently causing a breach of the EQS.

Furthermore, an improvement condition IC1 has been set requiring an Air Quality Management Plan (AQMP). We have specified that the Operator shall produce a written action plan to manage potential impacts in the event of prolonged emergency running of the SGBs (including sensitive receptors list and mitigations, assessments and impacts evaluation against modelled risk conditions i.e. occurrence at periods of most concern in the year, possibly ambient air monitoring surveillance at very sensitive receptors). This needs to be proportionate to the level of risk at the receptors. The Operator is expected to work with the local authority to develop this plan to ensure local factors are fully considered.

Emission Limits and Monitoring Requirements

Condition 2.3.5 of the permit sets a maximum 500 hour emergency/standby operational limit for plant producing on-site power under the limits of the combustion activity. Emergency hours' operation includes those unplanned hours required to come off grid to make emergency repair of electrical infrastructure associated but occurring only within the data centre itself.

Each individual generator with its own discharge stack, can be maintained, tested and used in a planned way for up to 500 hours per calendar year each without emission limit values (ELVs) or associated monitoring

under IED/MCPD. Therefore ELVs, to air and engine emissions monitoring, are not required within the permit. However, the Environment Agency expects planned testing and generator operations to be organised to minimise occasions and durations (subject to client requirements).

The permit has a limit on the activity to exclude voluntary 'elective power operation' such as demand side response (i.e. on-site use) or grid short term operating reserve (STOR) (i.e. off-site export of electricity) and Frequency Control by Demand Management (FCDM) for grid support. This is primarily to differentiate data centres from 'diesel arrays' that voluntarily operate within the balancing market. Also it provides a clear way to demonstrate minimisation of emissions to air for 'emergency plant'.

In line with our guidance (Data Centre FAQ Headline Approach, 2018) operations and management procedures should reflect the outcomes of the air quality modelling by minimising the duration of testing, phasing engines into subgroups, avoiding whole site tests and planning off-grid maintenance days and most importantly times/days to avoid adding to "at risk" high ambient pollutant background levels.

The permit application must assess and provide evidence of actual reliability data for the local electricity grid distribution (including data centre internal electrical design) for the EA to judge the realistic likelihood of the plant needing to operate for prolonged periods in an emergency mode (especially if emissions model so as to exceed short term air quality standards).

Reporting of standby engine maintenance run hours is required annually and any electrical outages (planned or grid failures regardless of duration) requires both immediate notification of the Environment Agency and annual reporting.

Emissions to Sewer

The only emissions to sewer from the site comprise of surface water run-off and sanitary effluent and occasional condensate discharges from clean water tank flushing, chiller systems and air conditioning units. The surface water drainage arrangements of each of the buildings (North, North 2, East and West) are discussed below:

North Building

Surface water runoff drains to the surface water drainage system and then either discharges off site into the municipal sewer, or discharges into the onsite foul water drainage system prior to off-site discharge into the municipal drainage system.

Oil interceptors are present on the surface water drainage system serving on site roads, surface water runoff in car parking and tank refuelling areas of the site. Surface water runoff from the fuel delivery area, fuel fill point and the fuel tank room for North Building does not drain via oil interceptors. To reduce the risk of spilt fuel entering the site's drainage system, all fuel deliveries require a permit prior to delivery. The permit requires that drainage grids within the fuel delivery area are covered during fuel delivery. Additionally, the driver must remain with the vehicle at all times during fuel delivery. The Operator is currently investigating the opportunity to install an oil interceptor on the surface water drainage system around the North Building or to divert the surface water runoff in this area via an existing oil interceptor. An improvement condition, IC3, has been set requiring them to outline which option they will proceed with following the investigation.

North 2 Building

Surface water runoff drains to the surface water drainage system and is discharged off site into the municipal sewer. Surface water runoff from the bulk diesel tank refuelling area passes via an oil interceptor.

East Building and West Building

Surface water runoff drains to the surface water drainage system and then discharges into the onsite foul water drainage system prior to off-site discharge into the municipal drainage system; an exception to this is some roof runoff for part of the East Building which discharges direct to municipal sewer. Surface water runoff from the bulk diesel tank refuelling areas passes via an oil interceptor.

Emissions to Surface Water and Land

There will be no emissions to surface water or land from the installation.

Noise and Vibration

The application contained a noise impact assessment, undertaken by SLR Consulting Limited, which identified sensitive receptors and potential sources of noise from the installation. The primary noise sources on the site are the SBGs, chillers and fans.

The assessment was completed in line with British Standard 4142 which assess the impact of industrial and commercial sound on residential receptors by subtracting the measure background from the rating level. BS4142 states: *"A difference of +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context."* and *"A difference of around + 5 dB is likely to be an indication of an adverse impact, depending on the context."*

The assessment modelled the following two scenarios:

- normal operations (fans at normal capacity, generators not running); and
- emergency operation (fans at high capacity, generators running).

Under normal operation the predicted noise level at the most impacted receptor was 46 dB and was not audible above traffic noise during the background survey. During an emergency situation the noise levels maybe audible at receptor locations and a 4 dB penalty was applied for the tonal character of the noise. The predicted noise level at the most impacted receptor, under emergency operations was 53 dB.

The background sound level at this receptor was 63 dB during the day and night time. Therefore, during normal operation the noise level from the site is predicted to be 17 dB lower than the derived background. During emergency operation the noise level is predicted to be 6 dB lower than the derived background.

In line with BS4142 this indicates that the installation is unlikely to have an adverse impact on nearby receptors.

Although no noise management plan has been requested, condition 3.4 enables the Environment Agency to request one if considered necessary in the future.

Best Available Techniques (BAT)

Engines

The Applicant carried out a review of the following candidate combustion technologies and made an assessment of the technology in order to determine which technology can be considered BAT.

- option 1 - diesel fired generators;
- option 2 - gas fired generators;
- option 3 - fuel oil fired gas turbines; and
- option 4 - fuel cell (hydrogen) generators.

The assessment considered the following key requirements, for the SBGs to provide emergency back-up electricity, for the candidate technologies:

- start-up time;
- reliability;
- independence of off-system services; and
- causing the least environmental impact.

The BAT assessment highlighted that option 2, gas fired generators, when compared to diesel generators produce fewer polluting emissions to air. However, the assessment states that they would not be suitable as

gas fired generators do not have as fast start-up as diesel generators. Furthermore, they can be considered to be not as reliable due to the reliance on an off-site supply of gas. Therefore, gas fired generators have been discounted.

Option 3, fuel oil fired gas turbines, have been discounted due to start up times not being as quick as diesel generators.

Option 4, fuel cell (hydrogen) generators, were considered in the BAT options and highlighted as being new technology without proven installation in back up generation capacity. In the absence of piped hydrogen significant quantities would need to be stored on site. Therefore, due to the lack of availability of space coupled with the health and safety risks of storing hydrogen this option has been ruled out.

Fast start is a fundamental requirement of the technology as it is essential to resume, almost instantaneously, a supply of electricity in the event of loss of power to the site from the local transmission system. Based on the ability for fast start-up and shutdown the BAT assessment concluded that option 1, diesel generators, are the preferred option with respect to the provision of emergency backup electricity supply at the datacentre.

We accept that oil fired diesel generators are presently a commonly used technology for standby generators in data centres. Currently diesel generators are the preferred option for the supply of backup power for datacentres and are a proven technology for providing reliable resilience of functionality which can be started from cold very quickly.

Generator specification

The default generator specification as a minimum for new plant to minimise the impacts of emissions to air (NOx) is 2g TA-Luft (or equivalent standard) or an equivalent NOx emission concentration of 2000 mg/m^3. The 8 existing generators in the North 2 and West building do accord with the 2g TA-Luft standard. Furthermore, the applicant has confirmed that the additional 8 engines to be installed with also meet this standard.

The 11 existing engines across the North and East buildings have emissions higher than this. However, we do acknowledge that it would not be practicable to require the operator at this stage to upgrade all plant to BAT standards.

Site electrical setup

The electricity supply arrangements for the site include six incoming feeds from the National Grid, any of which can serve the customer load. One of these feeds is a 132 kV supply from the National Grid which is not reliant on an external transformer station to step down the supply.

In addition in each building there are battery based uninterruptable power supply (UPS) systems which can supply power for up to 15 minutes should there be transient interruptions or fluctuations in power supply. These arrays can provide sufficient protection to the supply of electrical power whilst the SBGs are started.

The site operates its electrical supplies on an automatic basis. In the event of fluctuations in, or loss of, the electrical supply to the site, the relevant response (e.g. ignition of SBGs) is automatically deployed.

The generators and batteries will be used solely for the purpose for generating power for the facility. No electricity will be exported from the installation.

Waste minimisation

Whilst the site will inherently not produce significant amounts of waste, a waste minimisation audit will be performed periodically as part of the Waste Management System, throughout the operational lifetime of the site. The aim of this audit will be to minimise the use of all raw materials and thus prevent waste at source.

Waste oils from the generators will be approximately 4.5 tonnes per annum. The waste oil is recycled for fuel for a power station. Oily wastes are stored in suitable containers, such as 205 litre drums; these are located on bunded stillages whilst awaiting collection for off-site disposal by a licensed waste contractor.

Storage and Containment

Diesel storage tanks are located above and below ground and are compliant with the Oil Storage Regulations. Each SBG has its own day tank with the exception of West Building where two day tanks serve four SBGs on each floor. The day tanks are of single skin steel construction.

Depending on their location, any leakage from the day tanks would be contained in the bunded generator hall/bunded day tank rooms/bunded steel container units. The day tanks each have high level alarms and auto shutoff devices.

In addition to the day tanks, diesel is also stored at the site in bulk tanks below ground. However, for the North Building the bulk storage tanks are above ground in two bunded tank rooms. The below ground tanks are double skinned steel construction. The above ground tanks are single skinned and bunded to contain 110% of the tank capacity. All tanks have leak detection fitted, have overfill indication and audible alarms.

Remote fill points are used for the bulk storage tanks, which have drip trays to capture any minor spillages. The tanks have a level metre and high level alarm. The pipelines from the bulk storage to the buildings consist of double skinned flooded buried lines. The pipework is painted or constructed using corrosion resistant material to minimise risk of corrosion.

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain a condition relating to protection of soil, groundwater and groundwater monitoring. However, the Environment Agency's H5 Guidance states that it is only necessary for the operator to take samples of soil or groundwater and measure levels of contamination where there is evidence that there is, or could be existing contamination.

We are satisfied that there are sufficient measures in place to ensure there is adequate protection of soil and groundwater from these operations and that there is no evidence of historic contamination. Periodic monitoring will be required 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, condition 3.1.2.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made. The decision was taken in accordance with our guidance on confidentiality.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on confidentiality.
Consultation	
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations: • Local Authority - Tower Hamlets Council • Public Health England and Director of Public Health • Health and Safety Executive • Food Standards Agency The comments and our responses are summarised in the consultation section.
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. Based on the site condition report, we consider that appropriate pollution prevention measures are in place and that the pollution

Aspect considered	Decision
	of land and water is unlikely. The decision was taken in accordance with our guidance on site condition reports.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. There is one Special Area of conservation (SAC), one Special Protection Area (SPA) and one Ramsar within 10 kilometres of the installation. There are also 23 local Wildlife sites within 2 kilometres of the installation. We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. A Habitat Risk Assessment (HRA) was completed and sent to Natural England for information only. The decision was taken in accordance with our guidance
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory, however we have included improvement conditions to ensure additional considerations of risk relating to emissions to air are considered on an ongoing basis.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
Permit conditions	
Raw materials	We have specified limits and controls on the use of raw materials and fuels.
Pre-operational conditions	Based on the information in the application, we consider that we need to impose a pre-operational condition which requires the operator to specify the details of the additional 8 SBGs and that the environmental impact assessment is still valid.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. Three improvement conditions have been included in table S1.3 of the permit (IC1 to IC3). IC1 has been included requiring the Operator to produce an Air Quality Management Plan to manage the issue of prolonged emergency running of the plant and to ensure local factors are considered.

Aspect considered	Decision
	IC2 has been included to review the options to reduce routine operational hours for the maintenance and operating regime for each SBG. IC3 has been included to review options for managing surface water runoff around the North Building.
Emission limits	We have decided that emission limits are not required in the permit. Each individual generator with its own discharge stack, can be maintained, tested and used in a planned way for up to 500 hours per calendar year each without ELVs or associated monitoring under IED/MCPD.
Reporting	We have specified reporting in the permit to ensure that the installation is being operated in line with that specified in the operating techniques and to ensure that we are notified immediately in the instance that the site ever operated in emergency scenario mode.
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions. The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.
Relevant convictions	The Case Management System and National Enforcement Database have been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: “The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.” We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections. We consider the requirements and standards we have set in this permit are

Aspect considered	Decision
	reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation

The following summarises the responses to consultation with other organisations and our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from
Public Health England (PHE), 26 October 2018
Brief summary of issues raised
PHE recommend that any the permit should contain conditions to ensure that potential emissions (products of combustion) do not impact upon public health. PHE raised the following concerns: • limited consideration has been given to potential PM10, sulphur dioxide and carbon monoxide, particularly noting that the site is within an AQMA for PM10; • a draft air quality action plan is included; however, this only details that liaison with regulators is undertaken in the event of long-term generator operation, as opposed to specific mitigation measures; • no consideration is given to cumulative impacts with the adjacent Global Switch facility; • existing diffusion tube monitoring data has been discounted from modelling, given that these are 'roadside' locations; however, PHE notes that the site is bounded by 'A-roads' to the north, east and south. Furthermore, these concentrations are indicative of recorded (actual) as opposed to modelled concentrations; • consideration should be given to proposed times and dates of routine testing as a mitigation measures to potentially lessen public health impact. In addition the applicant has provided limited detail on site fire management plans and how accidents associated with the site combustion activities and fuel storage would be handled, which the EA may wish to consider as part of the permit application. PHE recommended that the following bodies are consulted: the local authority, the Food Standards Agency and the Director of Public Health.
Summary of actions taken or show how this has been covered
We carried out an assessment of the air quality modelling provided with the permit Application. Our Air Quality Assessment and Modelling team audited the assessment. As outlined in the key issues above, we agree with the Applicant's conclusions, that the maintenance scenario is unlikely to cause an exceedance of the EQSs. The emergency scenario was based on 500 operational hours. We would consider a more realistic scenario to be 120 hours based on the history of the site having had no black or brown out events requiring all SBGs to fire up since operations began in 1989. Although we cannot rule out an exceedance of the NO2 EQS it is unlikely that the worst predicted emissions will coincide with the worst meteorological conditions and therefore subsequently causing a breach of the EQS. Furthermore, an improvement condition IC1 has been set requiring an Air Quality Management Plan (AQMP). See key issues above for further information. We have consulted on this application with the Local Authority, the Director of Public Health and the Food Standards Agency, however, no responses were received.

Response received from
Tower Hamlets Council, 29 October 2018
Brief summary of issues raised
There are no open or historic enforcement cases. No objections to the Environmental Permit Application.
Summary of actions taken or show how this has been covered
No action required

We also consulted with the Director of Public Health, the Food Standards Agency, the Health and Safety Executive, no responses were received.