



Environmental Permit Application

Environmental Risk Assessment

Avonmouth Data Centre Limited

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Basis of Report

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1.0 INTRODUCTION

SLR Consulting Limited (SLR) has been instructed by Avonmouth Data Centre Limited (ADC) to prepare a bespoke environmental permit (EP) application for the proposed data centre development located at Severn Road, Pilning, Bristol, United Kingdom, BS11 0YU (the 'site').

The site will have a number of emergency back-up generators (SBGs), and so in accordance with the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR), is applying for a bespoke EP for a Section 1.1 A(1)(a) combustion activity.

The data centre will have 32 SBGs, designated for use as emergency backup generators:

- 32 x 2.424MWe generators, each with a thermal rated input of 7.29MWth.

The total rated thermal input (under standby power operating conditions) of the 32 SBGs will be 233.28MWth.

The SBGs are considered to be an 'Installation' as defined in Paragraph 1, Part 1, Schedule 1 of the EP regulations as "a stationary technical unit (STU) where one or more activities are carried on." The 'activities' that are proposed are defined in Chapter 1, Schedule 1 of the EP regulations, under Section 1.1. (Combustion Activities). Fuel storage for the SBGs and surface water drainage from the permitted Installation area are considered to be directly associated activities (DAAs) of the 'combustion' STU for the data centre.

1.1 Methodology

This ERA is an assessment of the risks to the environment and to human health that may be associated with the proposed operations at the Installation.

This ERA has been undertaken in accordance with the Environment Agency (EA) guidance '*Risk Assessments for your Environmental Permit*¹' dated December 2025. The aim of the ERA is to identify any potential significant risks and demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks.

This ERA uses the following approach for identifying and assessing the risks from the Installation:

Step 1 Identify risks and sources of risk from your activity.

Step 2 Where risks are identified from Step 1 then identify the receptors that could be affected.

Step 3 Identify potential pathways between the sources of risk and receptors.

Step 4 Assess the risks and check that they are acceptable. Justify appropriate measures to control your risks, if necessary.

Step 5 Submit your assessment.

Section 2.0 of this document is a screening step to identify the risks requiring consideration as part of this assessment.

Section 3.0 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. The ERA for an EP application requires all receptors that are near a site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

¹ <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>



For the purposes of this ERA the following distances (from the EP boundary) have been used to identify potentially sensitive receptors for the Installation:

- A 10km radius has been adopted in reviewing potentially sensitive receptors of international ecological importance;
- A 2km radius has been adopted in reviewing potentially sensitive receptors of national cultural and ecological importance; and
- A radius of 500m has been adopted for all other potentially sensitive receptors (for example residential, commercial, industrial, agricultural and surface water receptors).

Section 4.0 of this document presents the environmental risk assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.

2.0 IDENTIFYING THE RISKS

Step 2 of the ERA is a screening step to identify the potential risks to the environment from the Installation. The EA's guidance requires the following to be considered as 'Risks from your site':

- Any discharge, for example sewage or trade effluent to surface or groundwater;
- Accidents;
- Odour;
- Noise and vibration;
- Uncontrolled or unintended ('fugitive') emissions, including dust, litter, pests and pollutants that should not be in the discharge;
- Visible emissions, for example smoke or visible plumes; and
- Release of bioaerosols.

Further, for Installation and waste EP applications the EA guidance states that assessment of the following additional aspects is required, where applicable:

- Risks from air emissions;
- Risks to groundwater;
- Global Warming Impact;
- Risk to groundwater from landfill leachate;
- Risks to surface water from hazardous pollutants;
- Risks to surface water from sanitary and other pollutants; and
- Installations and waste operations must also decide how to treat, recycle or dispose of waste.

With regard to the proposed Installation, the activity to be permitted:

- Will not produce any process effluent or release bioaerosols.
- Will have no point source emissions to groundwater or land.
- There will be several point source emissions to air (via stacks) associated with the combustion of fuel (diesel or HVO) by each SBG, and there is the potential for visible emissions from these stacks.
 - A small 60kW diesel-fired sprinkler pump is proposed for the firewater system at the Installation, however due to the size of the proposed pump being less than 1



MWth (0.182 MWth) it falls outside of the Medium Combustion Plant Directive (MCPD) regulatory requirements and has therefore not been considered further within this assessment.

- There will be one point source emission to surface water (SW1) from the Installation, which will consist of surface water runoff only.

Therefore, only the following potential impacts are considered further in this risk assessment:

- Point source emissions to air;
- Point source emissions to surface water;
- Accidents;
- Noise & vibration;
- Visible emissions, for example smoke or visible plumes;
- Fugitive emissions; and
- Global warming potential.

3.0 SITE SETTING AND RECEPTORS

This section identifies the potentially sensitive receptors in the vicinity of the Installation that could be harmed (at potentially significant risk) by emissions from the activities to be permitted.

The guidance¹ requires all receptors that are near the data centre and could reasonably be affected by the proposed activities to be identified and considered as part of the ERA. The distances as detailed in Section 1.1 of this ERA have been used to identify the relevant receptors.

3.1 Site Setting

The Installation, centred at NGR ST 53743 81814, is located at Severn Road, Pilning, Bristol, BS11 0YU. The site location, local receptors and environmental site setting are shown in Drawings 001, 003, 004a and 004b as submitted with the EP application.

The Installation is immediately surrounded by industrial premises and open land. The city of Bristol is approximately 10km to the south-east. A summary of the immediate environmental site setting is provided in Table 3-1.

Table 3-1: Surrounding Land Uses

Boundary	Closest Distance (m)	Description
North	Adjacent	Commercial/industrial land, drain, open land, Seabank Power Station and Ableton Lane.
East	Adjacent	Viridor Energy Recycling Facility (ERF), swales/pond, Ableton Lane, Copart Bristol Car Auction, open land and CarTakeBack.
South	Adjacent	Former Viridor plastics recycling facility (to be redeveloped as part of the data centre Installation), drains/pond, Severn Road, large carpark, Stuppill Rhine, woodland, Hallen Wetlands and open land.



Boundary	Closest Distance (m)	Description
West	Adjacent	Commercial/industrial land, DAF Motus Commercials, Chittening Road, drain, open land, industrial/commercial land, caravan yard, solar and wind farm.

The immediate surrounding land uses are described in detail below.

3.1.1 Industrial and Commercial

The Installation is surrounded by commercial and industrial properties or land directly on all sides. The data centre hall lies directly south of the Installation, Viridor ERF adjacent to the east and land associated with the rest of the data centre facility lies adjacent to the west and north. DAF Motus Commercials sits c.40m west of the Installation.

Several other industrial properties are within 500m of the Installation boundary, including Seabank Power Station which covers a large area to the north/north-west of the Installation, approximately 90m away at the closest point of the Installation boundary.

3.1.2 Local Transport Network

The Installation will be accessed to the west via an unnamed track off Severn Road. The entrance from Severn Road lies approximately 140m to the south of the Installation boundary. Ableton Lane is approximately 80m east of the Installation, and Chittening Road is approximately 180m to the south west.

3.1.3 Woodland and Open Land

There are several areas of open land to the north, east, south and west. The closest area of woodland and open land is approximately 45m north of the Installation boundary. There is also an area of woodland approximately 370m to the south of the Installation.

3.1.4 Residential

There are no residential properties within 500m of the Installation.

3.1.5 Recreational

Hallen Wetlands is approximately 370m to the south of the Installation.

3.1.6 Surface Water Features

A search of the Multi-Agency Geographical Information for the Countryside (MAGIC)² map revealed that:

- The closest surface water features is a drain approximately 40m from the northern Installation boundary, with further drains beyond associated with the Red Rhine. There is also a small pond located approximately 60m to the north-east of the Installation.
- A balancing pond associated with the Viridor ERF is located approximately 180m south-west.

² Multi Agency Geographical Information for the Countryside, <https://magic.defra.gov.uk/MagicMap.html>, accessed April 2026.



- Further drains associated with the wider Viridor ERF site are present 140m to the south and 140m east of the Installation, bordering Severn Road and Ableton Lane respectively.
- Numerous drains associated with Stuppill Rhine are also present approximately 450m to the south of the Installation boundary.
- Some drains are located approximately 180m west of the Installation boundary, bordering industrial/commercial land including the western boundary of the DAF MOTUS Commercials Installation.

3.2 Geology, Hydrogeology and Flooding

3.2.1 Geology

British Geological Survey (BGS)³ data indicates the following general geological sequence beneath the Installation:

- Sedimentary superficial deposits of tidal flat deposits-Clay and silt, formed in a low-energy coastal or estuarine environment during the Quaternary Period; and
- The bedrock beneath the Installation is a Mercia Mudstone Group-Mudstone, consisting predominantly of mudstone of Triassic age (Mid to Late Triassic).

3.2.2 Hydrogeology

The underlying bedrock geology beneath the Installation is classified as a Secondary B aquifer. The overlying superficial deposits are classified as unproductive.

The Installation is not located within a Source Protection Zone.

3.2.3 Hydrology

According to MAGIC, the groundwater vulnerability at the Installation is classified as low. This indicates that there is a low risk of a pollutant reaching the groundwater below the Installation.

3.2.4 Flooding

The Flood Map for Planning⁴ identifies the Installation as being in a Flood Zone 3, which is defined by the EA as land with a high probability of flooding from rivers or the sea.

The following receptors were not identified within 500m of the Installation boundary:

- Agricultural;
- Cultural Heritage; and
- Educational.

³ British Geological Survey, www.bgs.ac.uk, accessed April 2026.

⁴ <https://flood-map-for-planning.service.gov.uk/>, accessed April 2026.

⁴ Check the long term flood risk for an area in England - GOV.UK (www.gov.uk), accessed April 2026.



3.3 Ecology and Cultural Heritage

3.3.1 European/International Sites

There are several designated European or International sites located within 10km of the Installation boundary. These sites include:

- Severn Estuary Special Area of Conservation (SAC), Special Protection Area (SPA) & Ramsar site, located approximately 700m west of the Installation at the closest point;
- Severn Estuary Marine Special Area of Conservation (SAC) & Special Protection Area (SPA) located approximately 700m west of the Installation at the closest point;
- Avon Gorge Woodland SAC, located approximately 6.10 km south-west of the Installation; and
- River Wye SAC, located approximately 9.21 km north of the Installation.

3.3.2 National Ecological Sites

There is one national site of ecological importance located within 2km of the Installation boundary. It is shown on drawing 004a Environmental Site Setting - Natural and Cultural Heritage and includes:

- Severn Estuary SSSI, approximately 700m to the west.

Searches on the MAGIC map confirmed none of the following are present within a 2km radius of the Installation:

- National Nature Reserves;
- Ancient Woodland;
- Local Nature Reserves;
- Areas of Outstanding Natural Beauty;
- National Parks;
- Biosphere Reserves;
- RSPB Reserves; and
- Woodland Trust Sites.

3.4 Cultural and Heritage

3.4.1 Scheduled Monuments

There is one Scheduled Monument within a 2km radius of the site named “*The Heavy Anti-aircraft battery 520m east of Holes Mouth*”, which lies approximately 1,500m south-west of the Installation boundary.

Searches on the MAGIC map confirmed that none of the following are present within a 2km radius of the Installation:

- Registered Battlefields;
- Listed Buildings;
- Registered Parks and Gardens; and
- World Heritage Sites.



A summary of the identified receptors is provided in Table 3-2 below.

Table 3-2: Identified Receptors

Receptor Name	Receptor Type	Direction from Installation	Approximate Distance from Installation Boundary at closest point (m)
Identified receptors within 500m of the Environmental Permit Boundary as shown on Drawing 003			
Commercial / industrial land	Industrial and Commercial	West	Adjacent
Viridor ERF	Industrial and Commercial	East	Adjacent
Former Viridor plastic recycling facility (to be redeveloped as part of the wider data centre site)	Industrial and Commercial	South	Adjacent
Commercial / industrial land associated with the wider data centre facility	Industrial and Commercial	West	Adjacent
DAF MOTUS Commercials	Industrial and Commercial	West	40
Drainage ditches	Surface Water Feature	North	40
Woodland area and open land	Woodland and Open Land	North	45
Small pond	Surface Water Features	North-east	60
Ableton Lane	Local Transport Network	East	80
Seabank Power Station	Industrial and Commercial	North	90
Drainage ditches	Surface Water Feature	South, East	140
Severn Road	Local Transport Network	South	140
Chittening Road	Local Transport Network	South-west	180
Drainage ditches	Surface Water Feature	West	180
Balancing pond	Surface Water Feature	South-west	180
CarTakeBack	Industrial and Commercial	East	215
Copart Bristol Car Auction	Industrial and Commercial	East	250



Receptor Name	Receptor Type	Direction from Installation	Approximate Distance from Installation Boundary at closest point (m)
Caravan Yard	Industrial and Commercial	South-west	265
Solar & Wind Farm	Industrial and Commercial	South-west	280
Woodland area	Woodland and Open Land	South	370
Hallen Wetlands	Recreational	South	370
Stuppill Rhine and associated drains	Surface Water Feature	South	450
Red Rhine associated drains	Surface Water Feature	North	450
Identified receptors within 2km and 10km of the Environmental Permit Boundary as shown on Drawing 004			
Severn Estuary SSSI	Ecological and Cultural Heritage	West	700
Severn Estuary SAC	Ecological and Cultural Heritage	West	700
Severn Estuary Marine SAC	Ecological and Cultural Heritage	West	700
Severn Estuary SPA	Ecological and Cultural Heritage	West	700
Severn Estuary Marine SPA	Ecological and Cultural Heritage	West	700
Severn Estuary RAMSAR	Ecological and Cultural Heritage	West	700
Scheduled Monument	Ecological and Cultural Heritage	South-west	1500
Avon Gorge Woodland SAC	Ecological and Cultural Heritage	South-west	6100
River Wye SAC	Ecological and Cultural Heritage	North	9210

3.5 Wind Rose

A Wind Rose for Filton meteorological station for the 4-year period (2012 to 2016), providing the frequency of wind speed and direction, is presented in Figure 3-1. The Wind Rose shows winds from the south-west are most frequent with winds from the south-east and north-west least frequent.



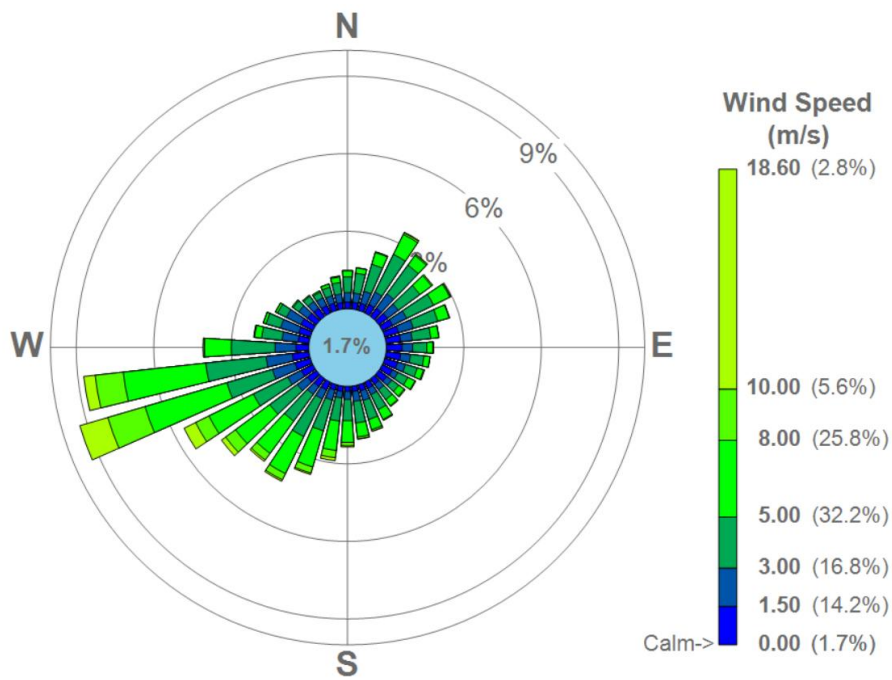


Figure 3-1: Wind Rose (Filton Station 2012 - 2016)



4.0 ENVIRONMENTAL RISK ASSESSMENT

This section considers the potential pathways between source and receptor and where appropriate, the assessment demonstrates how the risk of pollution or harm from the data centre can be mitigated by measures to manage these risks and/or block the pathways.

There will be several point source emissions to air associated with the SBGs and there will be one point source emission to surface water (SW1) from the activity area.

Therefore, the tables in this section assess the potential risk to receptors from the following hazards only, taking into account the measures proposed to reduce those risks:

- Air emissions;
- Visible Emissions.
- Accidents;
- Noise & Vibration;
- Fugitive Emissions; and
- Global Warming Impact.

The probability of exposure is the likelihood of the receptors being exposed to the hazard, and is defined as low, medium or high. These terms are qualified as follows:

- Low: exposure is unlikely, barriers in place to mitigate against exposure;
- Medium: exposure is fairly probable, barriers to exposure less controllable; and
- High: exposure is probable, direct exposure likely with few barriers.

The methodology outlined in Section 1.0 of this report is the basis on which it is determined whether the proposed operations will lead to significant impacts on the surrounding environment. Where a conclusion of 'not significant' has been reached, it is proposed that the mitigation and management measures that will be in place will be sufficient to ensure that there will be no impact on the surrounding environment.

An assessment in terms of hazards posed, receptors and pathways, along with management and residual risks from the hazards/impacts identified above from operation of the data centre, is presented in Tables 4-1 to 4-5 for each of the activities summarised in Section 2, and in accordance with the risks identified in Table 3-2 of this report.



Table 4-1: Air Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk, what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Combustion emissions from SBG stacks.	All receptors identified in drawings 003, 004a and 004b	Air	<p>The SBGs at the Installation will accord with the 2g TA-Luft standard.</p> <p>A detailed risk assessment of the impact on air quality of emissions of combustion products from the data centre SBGs is presented in Section 4 of this EP application (416.066815.00001_AERA). The findings of the assessment for routine testing and maintenance operations are that for planned maintenance and testing significant impacts are considered unlikely.</p> <p>In the highly unlikely event of a 72 hour 'electrical grid outage' there is potential for impacts on certain receptors.</p> <p>An Air Quality Action Plan (AQAP) will be developed by the operator, which will be incorporated into the environmental management system (EMS). The AQAP will detail the management actions to be taken in the event of an emergency outage of the electricity supply to the data centre that could result in the prolonged usage of the SBGs which could potentially result in adverse impacts on local air quality.</p> <p>The AQAP, once approved by the EA will be provided to the Local Authority.</p>	Low due to management measures and limited operational hours	Medium risk of pollution, harm to environment and human health	Low



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
			Planned Preventative Maintenance (PPM) will be in place for the maintenance and testing of the SBG's; maintenance will be conducted in accordance with the manufacturer requirements. The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001_BATOT).			
Potential visible emissions from the SBG stacks typically on start-up of the SBGs.	All receptors identified in drawings 003, 004a and 004b	Air	Visible emissions may occur transiently during SBG start-up. Planned preventative maintenance (PPM) will be in place for the maintenance and testing of the SBGs, which will reduce the risk of potential visible emissions during start-up. Maintenance will be conducted in accordance with manufacturer requirements. The Installation will implement visual checks for visible emissions from the SBGs during start up.	Very low due to maintenance measures and limited operational hours	Very low risk of pollution, harm to environment and human health	Not Significant

Table 4-2: Noise Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk, what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Noise from vehicular	Industrial, commercial and	Air (propagation)	The noise assessment prepared for the EP application (Ref: 416.066815.00001/Noise	Low subject to management	Low risk of nuisance	Low



What do you do that can harm and what could be harmed?		Managing the Risk		Assessing the Risk		
movements (fuel deliveries)	ecological receptors identified in drawings 003, 004a and 004b		<p>Assessment) has concluded that the planned maintenance and testing of the SBGs is not predicted to result in excessive levels of noise that could adversely impact identified sensitive receptors.</p> <p>Any noise complaint received will be logged. An appropriately designated person will investigate the complaint and will take action to identify the source of the noise and remedial measures will be implemented where appropriate.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001/BATOT).</p>	measures and operational controls		
Noise from operation of the SBGs.	Industrial, commercial and ecological receptors identified in drawings 003, 004a and 004b	Air (propagation)	<p>The SBGs will be located externally within containerised units provided with noise attenuation measures.</p> <p>All equipment will be maintained and operated in accordance with the manufacturer's guidance and maintained in good working order.</p> <p>The noise assessment prepared for the EP variation application (Ref: 416.066815.00001/Noise Assessment) has concluded that the planned maintenance and testing of the SBGs is not predicted to result in excessive levels of noise that could adversely impact identified sensitive receptors.</p> <p>Any noise complaint received will be logged. An appropriately designated person will investigate the complaint and will take action</p>	Low due to mitigation measures in place	Low risk of nuisance	Low



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
			<p>to identify the source of the noise and remedial measures will be implemented where appropriate.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001/BATOT).</p>			

Table 4-3: Fugitive Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk, what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
To Air						
Emissions during the transfer of substances in and out of storage (filling and emptying).	Industrial, commercial and ecological receptors identified in drawings 003, 004a and 004b	Air	<p>Best practices will be adhered to for all fuel loading activities. Such measures will not remove potential for emissions but will limit the duration of such releases.</p> <p>Deliveries of diesel/HVO will be from operator approved suppliers and undertaken in accordance with delivery procedures which will form part of the EMS.</p>	Low subject to management measures and operational controls	Very low risk of nuisance	Low



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
			<p>SBG belly tanks will have primary and secondary containment in line with CIRIA 736 with a pressure delivery over-fill prevention valve. They also have a level alarm connected to the BMS as well as leak detection.</p> <p>All diesel tanks will have overfill indication and alarms.</p> <p>On site fuel storage and associated pipework will be inspected for leaks, corrosion and mechanical integrity.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001/BATOT).</p>			
To Water						
Runoff from potentially contaminated areas (SBG compound and refuelling laybys)	Soil Groundwater	Overland percolation through the ground	<p>Refuelling Area</p> <p>There will be concrete hardstanding for SBG refuelling layby areas, located to the east and west of the SBG plant gantry. The loading areas will be concrete surfaced with raised kerbing around the perimeter and will be cambered so that any runoff drains towards a drainage channel on the outermost edge of each of the refuelling areas. Each of these drains will direct this runoff to the surface water drainage system via one of two newly installed full retention Class 1 forecourt petrol interceptors. The interceptors will have an audible alarm system which connects to the data centre BMS; the alarm will notify key data centre staff of any oil in surface water runoff collected in the interceptor.</p>	Very Low subject to management measures and operational controls	Medium risk of pollution, harm to environment.	Not significant



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
		<p>SBG Compound</p> <p>The SBGs compound will have a bund wall on three sides and a ramped entrance designed to contain any rainwater, spills or leaks. Within this bunded compound will be three floor drainage gullies designed to capture run-off from within this area. Each gully will drain to a manhole fitted with a sensor to detect hydrocarbons and ethylene glycol. The sensors will be connected to the BMS, which in the event of detection, will automatically close off the manholes to prevent the discharge of potentially contaminated water from the compound entering the surface water drainage system.</p> <p>Surface water runoff from the Installation will flow via one to two full retention separators before discharging from the Installation at emission point SW1. The runoff then enters the surface water drainage system for the adjacent Viridor facility, which drains via an existing system of swales, then enters a drainage ditch before ultimately discharging to the Bristol Channel.</p> <p>The interceptors will be regularly inspected and maintained; all retained oil/sludge will be removed by suitably licensed contractors.</p> <p>No oily water will be permitted to leave the Installation under normal operating conditions.</p>				



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
			<p>The integrity of the SBG belly tanks will be subject to regular inspection by site personnel. Any identified defects or weaknesses or issues with containment measures will be repaired as soon as practicable.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001/BATOT).</p>			

Table 4-4: Accidents and Incidents Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk, what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Leak from on-site fuel storage	soil and groundwater	Over land. Percolation through the ground from storage tanks and	<p>Belly tanks will have primary and secondary containment in line with CIRIA 736. They will have a pressure delivery over-fill prevention valve, a level alarm and leak detection connected to the BMS.</p> <p>The refuelling pipelines to each of the belly tanks will run above ground and will be double walled with leak detection. To</p>	Low subject to management measures and operational controls	Medium risk of pollution, Harm to Environment and Human Health	Low



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
		associated pipework	<p>minimise the risk of corrosion all pipework will be painted or constructed of corrosion resistant material.</p> <p>On-site fuel storage and associated pipework will be scheduled for testing for leaks, corrosion and mechanical integrity.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001/BATOT).</p>			
Release as a result of refuelling activities by third parties	Industrial, commercial, surface water, recreational and ecological receptors identified in drawings 003 and 004a and 004b	<p>Over land</p> <p>Percolation through the ground</p> <p>Surface water</p>	<p>Best practices will be adhered to for all fuel loading/unloading activities. All suppliers will be required to adhere to the current Carriage of Dangerous Goods (ADR) Regulations, as applicable.</p> <p>Spill kits will be available on site to clean up any spills.</p> <p>Deliveries of fuel will be from operator approved suppliers and will be undertaken in accordance with delivery procedures that will be developed as part of the EMS.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the Operating Techniques (Ref: 416.066815.00001/BATOT).</p>	Low subject to management measures and operational controls	Medium risk of pollution, Harm to Environment and Human Health.	Low
Fire	Industrial, commercial, surface water, recreational and ecological receptors	Air (smoke), firewater water run-off	<p>A Fire Safety Strategy has been undertaken for the facility by a third-party consultant.</p> <p>The proposed Installation will have fire detection systems which will be subject to regular testing. Suppressant systems, including pre-action sprinklers, will be in</p>	Very Low subject to fire management systems, management measures and	Medium risk of potential fire hazards. Release of emissions to air	Low



What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
	identified in drawings 003 and 004a and 004b		place in plant rooms, SBG container units, office and general storage areas. Portable fire extinguishers will also be provided. All fire suppression systems will integrate with the fire detection and alarm system. Activation may initiate ventilation shutdown, electrical isolation, closure of dampers and fire doors. Bunded storage, protected pipework, isolation valves and spill response procedures will reduce the risk from the fuel systems.	operational controls	from combustion of fuel oil. Potential for fire to spread to other areas of plant. Firewater contamination.	
Security and Vandalism	Industrial, commercial, surface water, recreational and ecological receptors identified in drawings 003 and 004a and 004b	Air Land	The following security measures will be in place: <ul style="list-style-type: none"> • 24/7 security team on site • Site access control system including card readers and biometric readers at the entrance • Site perimeter security measures including razor wire, anti-dig perimeter fencing and man trap entry • CCTV surveillance. <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the Operating Techniques (Ref: 416.066815.00001/BATOT).</p>	Low due to security measures and management controls	Low risk of pollution, harm to environment and human health	Not significant
Flooding	Personnel on site Industrial, commercial, surface water, recreational and ecological	Land, Water	According to the UK government Flood Map for Planning, the Installation lies within flood zone 3. Land and property in flood zone 3 is defined by the Environment Agency as land with a high probability of flooding from rivers or the sea.	Low subject to management measures and operational controls	Medium	Not significant



What do you do that can harm and what could be harmed?		Managing the Risk	Assessing the Risk		
	receptors identified in drawings 003 and 004a and 004b	<p>SBGs and associated belly tanks will be containerised and provided with primary, secondary and tertiary containment measures which will act to minimise the risk of damage as a result of potential flooding.</p> <p>A Business Continuity Plan will be developed by the operator which will include measures to be taken in the event of flooding.</p> <p>The Site Manager will be responsible for implementing risk management measures in conjunction with the operating techniques document (Ref: 416.066815.00001/BATOT).</p>			



Table 4-5: Global Warming Potential (GWP)

What do you do that can harm and what could be harmed?			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk
<i>What has the potential to cause harm?</i>	<i>What is at risk, what do I wish to protect?</i>	<i>How can the hazard get to the receptor?</i>	<i>What measures will you take to reduce the risk? Who is responsible for what?</i>	<i>How likely is this contact?</i>	<i>What is the harm that can be caused?</i>	<i>What is the risk that still remains? The balance of probability and consequence.</i>
Generation of CO _{2e} emissions	National and global air quality and climate change	Air	Operation of the generators involves the combustion of diesel fuel to generate electricity for use at the data centre in the event of an emergency outage of the National Grid supply of electricity. The generators will be subject to planned maintenance and testing. The combustion of diesel results in the generation of CO _{2e} emissions. Energy consumption has been considered in the BATOT document (Ref: 416.066815.00001/BATOT).	Medium	Medium risk of harm to Environment, Harm to Human Health	Medium



5.0 CONCLUSION

The ERA has separately considered sensitive receptors to the Installation and assessed the potential risks from the permitted activities at the data centre based on the balance between the probabilities of exposure and the magnitude of the consequences of those exposures. Overall, with the implementation of operational controls and management measures, no significant environmental risks associated with the Installation have been identified.



