



standard<sup>gas</sup>

## Site Condition Report

Scottow Enterprise Park

1st May 2025

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## Signature Page

1st May 2025

# Site Condition Report

## Scottow Enterprise Park

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## Acronyms and Abbreviations

Name	Description
EA	Environment Agency
SCR	Site Condition Report
EPR	Environmental Permitting Regulations
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
NNR	National Nature Reserve
LNR	Local Nature Reserve
LWS	Local Wildlife Site

## 1. INTRODUCTION

This Site Condition Report (SCR) has been prepared on behalf of Standard Gas SG No.1 Ltd ('Standard Gas' or 'The Applicant' and 'Operator' hereafter) by Sol Environment Ltd in support of a Permit Application under The Environmental Permitting (England and Wales) Regulations 2018 (as amended).

This document outlines the ground conditions at the site at the time of the permit application and has relied on information supplied by the site and various third-party information sources (See Section 3).

The proposed Installation is located at Hanger 2, Lamas Road, Badersfield, Scottow, Norfolk, NR10 5FB.

Standard Gas's pyrolysis technology is a proven Advanced Thermal Treatment plant which thermochemically produces cracked and cleaned syngas from pre-processed non-hazardous solid wastes, principally Refuse Derived Fuel (RDF) and other similar combustible material to operate a series of gas fired CHP engines to generate power and provide heat to the wider Scottow Enterprise Park.

The Installation has been designed to process approximately 50,000 tonnes of pre-processed non-hazardous waste per annum (energy mass balance of the plant assumes an average of 6 tonnes per hour with a typical GCV of 11 – 15MJ/kg) to generate approximately 5MWe of renewable electricity and approximately 2.5MWth of heat.

The Standard Gas pyrolysis technology will produce a clean '*End of Waste*' synthesis gas and therefore meets the definition of an Installation as defined by Section 1.2 '*Gasification, liquefaction and refining activities*' paragraph A(1)(f)(iv) namely:

*'Activities involving the pyrolysis, carbonisation, distillation, partial oxidation or other heat treatment of other carbonaceous materials.'*

On the basis that all gas combusted by the process meets the 'End of Waste' criteria, the CHP engines will be regulated as Medium Combustion Plant (MCP) and Specified Generators (SG) and operated in accordance with the Environmental Permitting (England and Wales) Regulations 2018 (As amended).

All emissions from the combustion activities shall be in accordance with the MCP Directive, noting that Chapter IV of the Industrial Emissions Directive (IED) does not apply whereby Article 42 (1) is achieved – deeming syngas as no longer a waste and causing emissions no higher than combustion of natural gas.

This document has been prepared in accordance with the EA's Guidance Document H5 Site Condition Reports Guidance and Templates (Version 3.0, dated April 2013). This report provides baseline information in relation to the site.

## 2. SITE DETAILS

### 2.1 Site Location

The proposed Installation is located at Hanger 2, Lamas Road, Badersfield, Scottow, Norfolk, NR10 5FB. The National Grid Reference is TG 26104 23008.

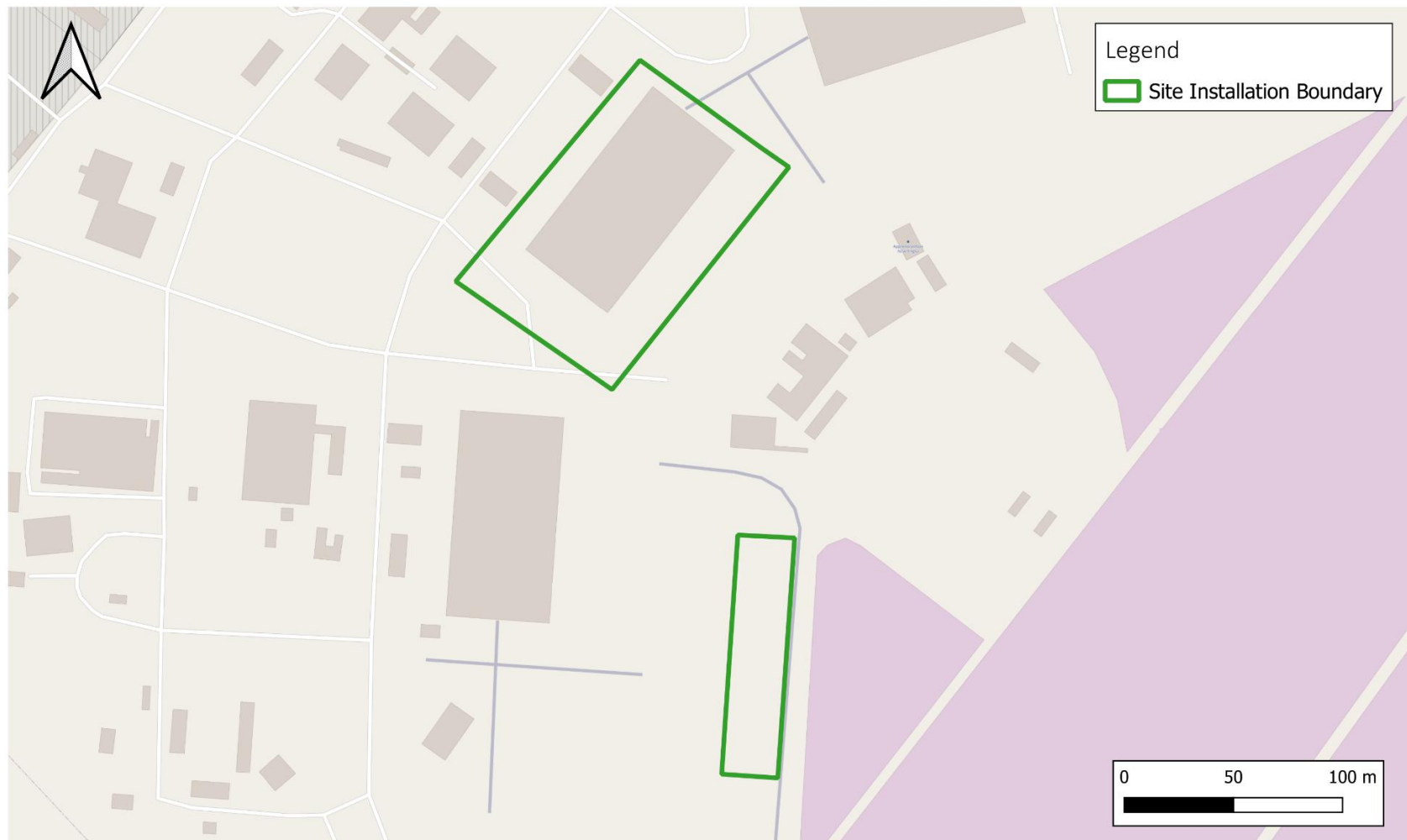
### 2.2 Infrastructure and Design

#### 2.2.1 *Site Boundary*

The proposed installation boundary of the site is shown below in Figure 2.1.

#### 2.2.2 *Site Layout and Design*

The proposed site area consists of Hanger 2 building and an external baled storage area. The site layout is shown below in Figure 2.2 and 2.3.



*Figure 2.1 Site Installation Boundary*



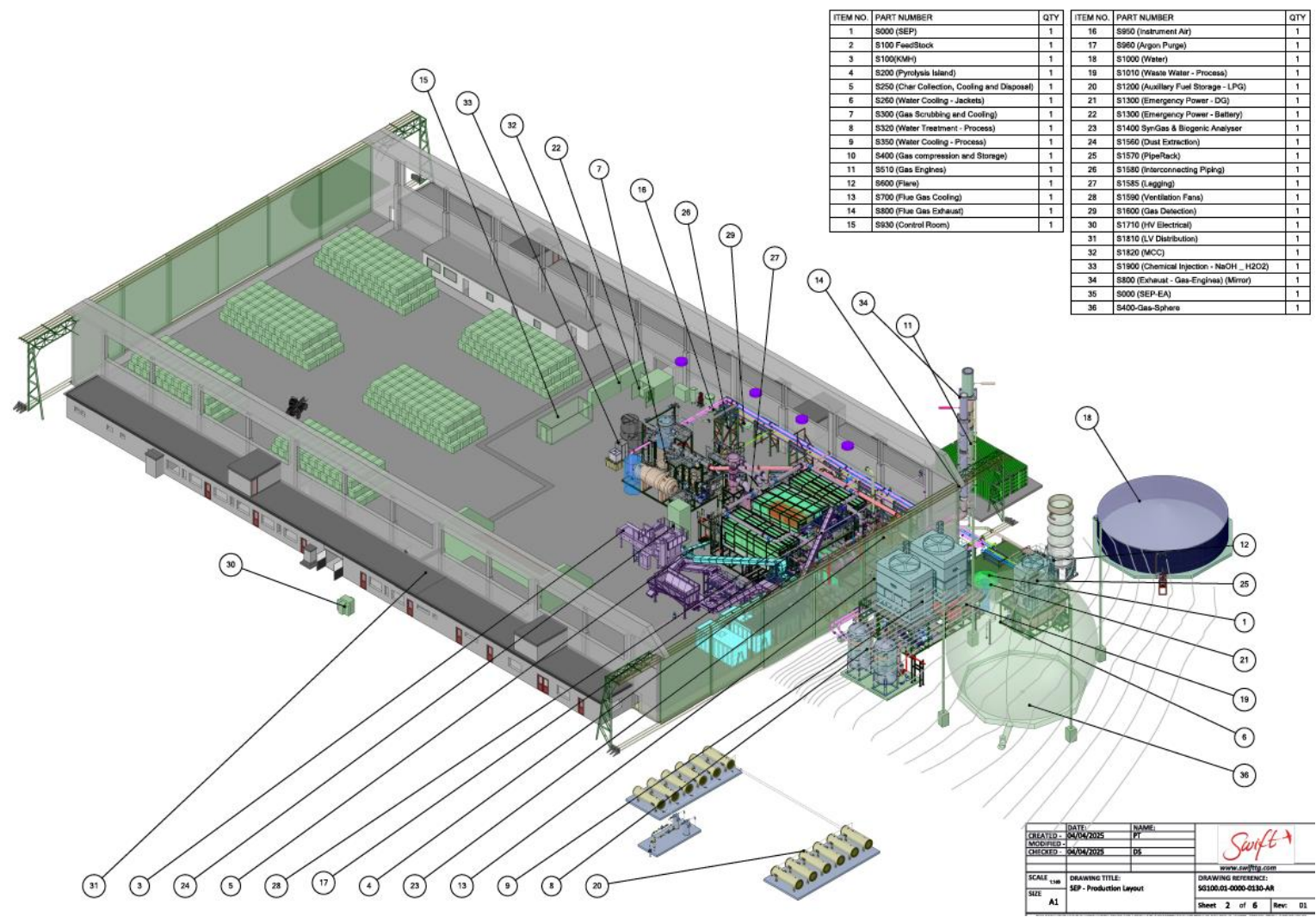


Figure 2.2 Site Layout

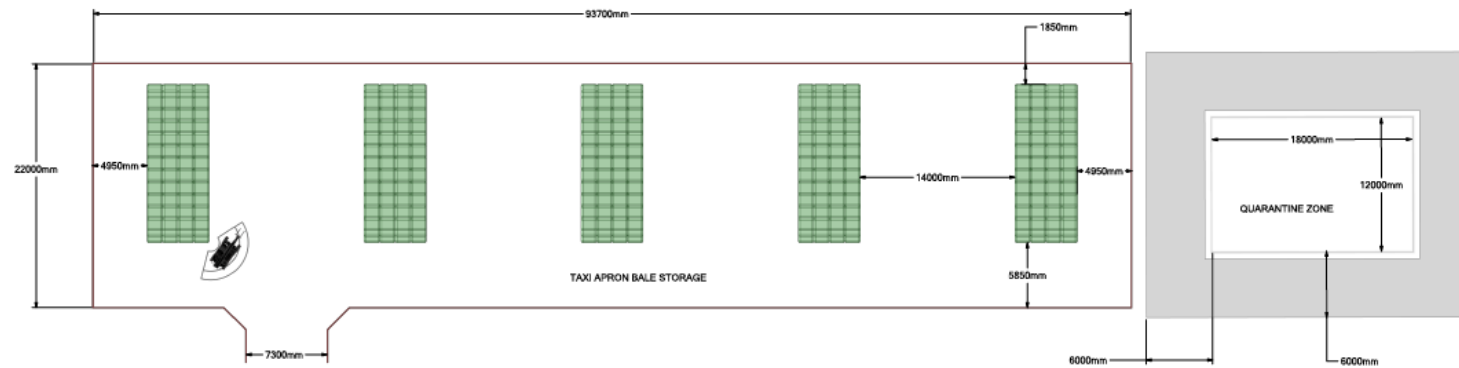


Figure 2.3 External Storage Yard Layout

## 2.3 Environmental Setting

The location of the subject Site is shown in Figure 2.1, centred at approximate National Grid Reference TG 26104 23008. The proposed site layout is also included in Figure 2.2 and 2.3 above.

The site is located within Hangar 2 of the former airfield at RAF Coltishall between the villages of Badersley and Scottow in Norfolk. The Scottow Enterprise Park is located to the north of the airfield a majority of which is now a PV array solar farm. The site surroundings are summarised in Table 2.1 below.

Hangar 2 is within the Enterprise Park, surrounded by other industrial or commercial units, with Gravitilab Aerospace Services to the east, Vdepot Ltd to the north, and KMR Motorsport and EMH Joinery to the west. To the northwest lies HMP Bure (prison) with the Douglas Bader School and residential properties associated with the village of Badersfield beyond.

The surrounding area is predominantly agricultural, with the solar farm dominating the southern area associated with the airfield. The closest water feature comprises a pond approximately 375m east, beyond which is an unnamed stream within Stewards Plantation at 1.2km distant. The River Bure is located 1.6km to the west of the site. Residential properties on Barton Road are the closest in proximity to the site located approximately 400m to the northwest.

**Table 2.1 Site Settings**

Direction	Description
North	Vdepot Ltd
North East	Vdepot Ltd
East	Small access road with commercial properties beyond, including Gravitilab Aerospace Services
South East	Solar Farm
South	Access road with the neighbouring Hanger and beyond the Solar Farm
South West	Industrial units
West	Commercial properties including KMR Motorsport and EMH Joinery and beyond the village of Badersfield
North West	HMP Bure (Prison) and beyond a School and residential properties associated with the village of Badersfield

### 2.3.1 Designated Sites

Environment Agency H1 and H5 guidance states that the potential impacts of the site should be assessed for the following habitat sites within 10km of the Installation:

- Special Areas of Conservations (SACs) and candidate SACs (cSACs) designated under the EC Habitats Directive;
- Special Protection Areas (SPAs) and potential SPAs designated under the EC Birds Directive; and
- Ramsar Sites designated under the Convention of Wetlands of International Importance.

It is also stated that within 2km of the Source:

- Sites of Special Scientific Interest (SSSI) established by the 1981 Wildlife and Countryside Act;
- National Nature Reserves (NNR);
- Local Nature Reserves (LNR);
- Local Wildlife Sites (LWS), County Wildlife Sites (CWS) and potential wildlife sites (PWS);
- Sites of Importance for Nature Conservation (SINC); and
- Ancient Woodland.

Information from the Multi Agency Geographic Information for the Countryside (MAGIC) website (<http://magic.defra.gov.uk/>) has been used to obtain the above information.

There are three LWS within 2km of the site, to the north and north west. Within 10km of the site there are three European sites, Norfolk Valley FENS, approximately 9km to the west and is designated as a SAC. Between the east and south of the site are numerous pockets of land specified as the Broadland and The Broads and are designated as Ramsar, SPA and SAC sites.

The site has minimal process emissions to land, controlled waters or atmosphere and therefore it is the concluded that there will be no direct or indirect effects on any of the statutory site described above.

### 2.3.2 *Flood Risk*

The site is located within Flood Zone 1 which means that there is a low probability of flooding from rivers or sea.

### 3. CONDITION OF LAND AT PERMIT ISSUE

#### 3.1 Environmental Settings

Desk-based research of the local geology, hydrogeology and surface waters has been carried out in order to establish the potential for migration of contamination onto or away from the Site, and to assess the surface water and groundwater sensitivity of the Site area. Information was obtained from a number of sources, namely:

- Environment Agency Flood Risk Map;
- Information provided by Groundsure Report;
- Geological maps produced by the British Geological Survey (BGS) and the BGS Geology of Britain Viewer (<http://maps.bgs.ac.uk/geologyviewer>);
- MAGIC (<http://magic.defra.gov.uk>); and
- BGS Borehole Record Viewer (<http://www.bgs.ac.uk/data/boreholescans/home.html>).

##### 3.1.1 Geology

The British Geological Survey (BGS) states that the site is directly underlain by superficial geology of the Happisburgh Glacigenic Formation – sand and gravel.

The bedrock at the site comprises of the Wroxham Crag Formation – Sand and Gravel. This is described in the BGS Lexicon as, *“a sheet of interbedded gravels, sands, silts and clays. The gravels are dominated by flint (up to c.80%) and by quartz and quartzite (up to c.60%), with far-travelled minor lithologies including Carboniferous chert, Rhaxella chert, Greensand chert, Spilsby Sandstone and felsic volcanic rocks from North Wales. The deposits are interpreted as estuarine and near-shore marine.”*

According to UK radon the site is in an area where all parts are in the lowest band of radon potential. Radon protection measures will not be necessary.

##### 3.1.2 Hydrogeology

The superficial deposits at the site are classified by the EA as a ‘Secondary B Aquifer’. This is defined as lower permeability layers that store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. The bedrock is classified by the EA as a ‘Principal Aquifer’. This is defined as strategically important rock units that have high permeability and water storage capacity.

The site has high Groundwater Vulnerability.

The Broadland Rivers Chalk and Crag WFD Groundwater body on site is rated as ‘poor’ by the EA.

There are 9 groundwater abstractions for over 20m<sup>3</sup> per day located within 2 km of the site, though only 2 of these are actively licenced. The active licences are both operated by Scottow Farms, located 415m northeast and 618m northeast of the site and utilised for general farming and spray irrigation.

The site is not within a Groundwater Source Protection Zone.

The site lies within a Groundwater Nitrate Vulnerable Zone.

The majority of the site has a low groundwater flood risk.

The site is considered to have moderate sensitivity with regards to groundwater due to being underlain by secondary B and principal aquifers in a Nitrate Vulnerable Zone, but with a lack of potable groundwater abstractions in close proximity and low risk of groundwater flooding.

### **3.1.3**     *Surface Water*

The nearest surface water feature is an unnamed pond / reservoir located 360m east. The closest main water body is the River Bure located 1.6km to the west. The site is within the Bure River catchment.

There are no surface water abstractions on site. There are 8 recorded EA licensed surface water abstractions within 2km of the site, 5 of which are active. The closest of which is 1.7km to the north, licenced to Whitwell Hall Farms Ltd for abstraction from Stakebridge Beck at Swanton Abbott for the purposes of spray irrigation.

The site is considered to be in an area of low sensitivity regarding surface water due to the proximity of watercourses and low flood risk on site

## **3.2**       *Pollution History*

### *Environmental Database Records*

The following information has been obtained from a search of a publicly available database of environmental information (Groundsure Reports obtained are provided in Annex A).

The database contains records of information from public registers held by environmental regulatory authorities and can be used to assess the site's sensitivity, the potential for neighbouring activities to pose a risk to the site and to determine whether specific records of pollution relate to the subject site.

### **3.2.2**     *Pollution Incidents*

At the time of this submission, the current occupiers (Standard Gas) report that there have been no significant pollution incidents at the site.

The environmental database does not hold any records of pollution incidents relating to the Site or within 250m of the site.

### **3.2.3**     *Landfills and Waste Sites*

There are no records of landfill sites on or within 250m of the site.

There is one historical waste site within 500m, south of the site. The site was classed as a Recycling Centre.

### **3.2.4**     *Discharge Consents*

There are no discharge consents within 500m of the site.

### **3.2.5**     *Historical Land Uses*

The historical development of the site has been determined by reference to historical plans and Google Earth imagery. The reviewed historical plans comprise only readily available records and may be limited; however, the information available to date indicates that additional searches are unlikely to add to our understanding of the site. The earliest available historical mapping covering the site dates back to 1886. Historical land uses are summarised in Table 3.1 below.

**Table 3.1 Summary of Historical Land use**

Date	Site	Surrounding Land Use (within 250m of the site)
1886	The site consists of open fields and field boundaries	The site is surrounded by fields and field boundaries. Long Lane runs the west and southwest of the site
1905	No significant changes	No significant changes
1946	Groundsure indicates RAF Coltishall has been constructed and is presented onsite. RAF Coltishall was started in February 1939 and went into service in May 1940 as a fighter base.	Infrastructure and buildings associated with the airfield have been constructed
1953	Groundsure indicates again the site is occupied by fields, however historical information shows that the airfield is still present	No significant changes to airfield structure assumed, however unable to verify due to the inaccurate historical mapping
1974	RAF Coltishall is presented on historical mapping from this time onward	No significant changes
1978-1979	No significant changes	No significant changes
1985-1988	No significant changes	No significant changes
1955	No significant changes	No significant changes
2001	No significant changes	No significant changes
2010	No significant changes (airfield has been decommissioned)	No significant changes
2025	Scottow Business Park opened in 2013	No significant changes

### 3.3 Site Reconnaissance

#### *Visual/Olfactory Evidence of Existing Contamination*

The site has been inspected and there has been no evidence of existing contamination.

### 3.4 Evidence of Historic Contamination

#### 3.4.1 Site Investigation

Earth Environmental and geotechnical carried out a ground investigation in January 2025. The investigation comprised of four exploratory hand pit, holes for testing.

The exploratory holes was undertaken to a depth of 0.6m and 1m and encountered the following ground conditions:

- Grass over topsoil; and
- Superficial deposits – variably sandy, gravelly clay.

Groundwater was not encountered.

##### 3.4.1.1 Soil

Chemical analyses were carried out on samples from the four holes and were submitted for the following suite of determinants:

- pH, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Boron, Selenium, Barium, Beryllium, Vanadium, Sulphate (SO<sub>4</sub>), Sulphide, cyanide, Coal Tar, Phenol.

The chemical analysis have also been screened against accepted compliance criteria and include the following:

- Defra C4SL Health Criteria Values;
- CL:AIRE Cat 4 Screening Values: Naphthalene; and
- Tier 1 assessment values – based on LQM/CIEH Sutable 4 Use Levels.

##### Soil Chemical Analysis Results

In general, no widespread evidence of contamination was identified across the site, the contamination tests indicate generally low concentrations of potential contaminants. No remedial works will be required on site.

All but one sample can be classed as non-hazardous. There is one sample that is classed as hazardous due to elevated zinc levels.

Asbestos has not been encountered in any of the samples tested or describe asbestos encountered.

All detailed soil results are provided in Annex A – Ground Contamination Report – 2025.

##### 3.4.1.2 Groundwater

Groundwater was not encountered during the investigation.

##### 3.4.1.3 Ground Gas

Based on the ground conditions encountered and geological records, it is considered the risk posed by land gas is low and gas protection measures on site will not be required.



### 3.5 Supporting Information

Figures detailing the location, boundary and layouts of the Installation are shown in Annex A of the application.

All site investigation reports are provided in Annex A of the SCR, and include the following:

- A Ground Contamination Assessment Report – 2025.

## 4. PERMITTED ACTIVITIES

### 4.1 Activities Undertaken at the Installation

The Installation has been designed to process approximately 50,000 tonnes of pre-processed non-hazardous waste per annum to generate approximately 5MWe of renewable electricity and approximately 2.5MWth of heat.

The Standard Gas pyrolysis technology will produce a clean 'End of Waste' synthesis gas and therefore meets the definition of an Installation as defined by Section 1.2 'Gasification, liquefaction and refining activities' paragraph A(1)(f)(iv) namely:

*'Activities involving the pyrolysis, carbonisation, distillation, partial oxidation or other heat treatment of other carbonaceous materials.'*

On the basis that all has combusted by the process meets the 'End of Waste' criteria, the CHP engines will be regulated as Medium Combustion Plant (MCP) and Specified Generators (SG) and operated in accordance with the Environmental Permitting (England and Wales) Regulations 2018 (As Amended).

All emissions from the combustion activities shall be in accordance with the MCP Directive, noting that Chapter IV of the Industrial Emissions Directive (IED) does not apply where by Article 42 (1) is achieved – deeming syngas as no longer a waste and causing emissions no higher than combustion of natural gas.

A commissioning and validation process is currently underway which has been agreed by the EA under the conditions of a LEP and in accordance with Regulatory Position Statement 182 '*Carrying out research or trials with waste at sites without an Environmental Permit*'.

The LEP agreement allows Standard Gas to carry out a controlled and time limited commissioning test of their syngas production module (SG100). The test will confirm overall energy mass balance of the process in addition to demonstrating the cleanliness of the syngas produced by the plant will be comparable to natural gas and therefore meeting 'End of Waste' criteria. All evidence from the R&D trial will be available to the Environment Agency during the determination of the permit.

The facility has been designed to accept pre-processed non-hazardous solid wastes, principally SRF and RDF in accordance with stringent site waste acceptance procedures and agreed specification

#### 4.1.1 Substances Used at the Installation

Raw materials used at the installation are summarised in Table 4.1 overleaf.

**Table 4.1 Raw Materials**

Material	Total Quantity	Use	Storage Arrangements	Fate
Feedstock - (pre-processed non-hazardous solid wastes, principally RDF and other similar combustible material)	50,000 tonnes per annum	Used in the pyrolysis process to generate 'End of Waste' compliant syngas.	Either stored within the external baled storage area or internally with dedicated storage areas.	Pyrolised by plant and equipment. Co-product char cooled, contained, and removed from site.
Activated Carbon	2 x 10 tonne beds	Process water VOC removal	2 x Activated Carbon beds	Units delivered and exchanged by supplier when spent
Hydrogen Peroxide	2-4 x IBC	Quench and dosing chemical	Stored in sealed containers, IBCs	IBCs delivered and exchanged by supplier when spent
Sodium Hydroxide	1-2 x IBC	Quench and dosing chemical	Stored in sealed containers, IBCs	IBCs delivered and exchanged by supplier when spent
Diesel	1-2 x IBC	For operation of emergency standby generator to safely shutdown plant in the event of grid failure	Stored in sealed containers, IBCs	Combusted
LPG	12 x 2 tonne tanks	For thermal plant start-up and shut down	Stored externally, installation by approved sub-contractor	Combusted
Hydraulic and Lubricating Oils	Minimal amounts required for commissioning	Use in plant and machinery	Stored in sealed containers	Disposal to waste oil re-processor
Argon	TBC	Purging the pyrolysis and syngas system prior to operation	Stored in compressed gas canisters	Lost to atmosphere and emitted via stack A1.

#### 4.1.2 Waste

The pyrolysis plant has been designed to process 6 tonnes per hour of feedstock, equating to 50,000 tonnes per annum. The maximum amount of feedstock processed per day will be 120 tonnes per day.

All feedstock will either be delivered to site loose or in pre-prepared sealed bales. Bales will either be stored externally within a designated storage area or internally within the main processing building. All loose waste will be stored within a dedicated bay within the main processing building.

All waste being provided to site are through a single source and are being supplied in accordance with the following fuel specification outlined in Table 4.2 below.

**Table 4.2 Proposed Incoming Waste Feedstock Specification**

Parameter	Value
Calorific Value	Minimum 11 MJ/kg Maximum 15 MJ/kg
Density Requirements	Higher than 250 kg/m <sup>3</sup> Lower than 350 kg/m <sup>3</sup>
Particle Size of Fuel	Individual particle size is to be 30 mm in any direction (3D) +/- 5mm Fuel particle size requirements are as follows: <ul style="list-style-type: none"> <li>90 % by weight less than 30 mm</li> <li>97 % by weight less than 35 mm</li> </ul>
Moisture Content	Moisture content of the fuel is to be <20%, by weight
Ash Content	0 – 32 weight % (dry)
Nitrogen Content	< 1.5 weight % (dry)
Sulphur Content	< 0.4 weight % (dry)
Chlorine Content	< 0.1 weight % (dry)
Fluorine Content	< 0.01 weight % (dry)

The European Waste Catalogue (EWC) codes of wastes that will be accepted by the site is provided in Table 4.3 below.

**Table 4.3 Proposed Feedstock – EWC Codes and Types**

Waste Code	Description
<b>02</b>	<b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION, FOOD PREPARATION AND PROCESSING</b>
<b>02 01</b>	<b>agriculture, horticulture, aquaculture, forestry, hunting and fishing</b>
02 01 03	plant tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
<b>03</b>	<b>WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD</b>
<b>03 01</b>	<b>wastes from wood processing and the production of panels and furniture</b>
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04

<b>03 03</b>	<b>wastes from pump, paper and cardboard production and processing</b>
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of wastepaper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
<b>04</b>	<b>WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES</b>
<b>04 02</b>	<b>wastes from the textile industry</b>
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
<b>15</b>	<b>WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</b>
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 06	mixed packaging
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>
<b>17 02</b>	<b>wood, glass and plastic</b>
17 02 01	wood
17 02 03	plastic
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>
<b>19 02</b>	<b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 01	paper and cardboard
19 12 04	plastic and rubber
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11)

#### 4.1.3 Drainage Systems

There will be no direct process emissions to controlled water arising from the installation. The site benefits from a sealed drainage system.

Uncontaminated clean surface water runoff captured from roof drainage and external roadways / car parking areas will be discharged to the existing surface water drainage system (W1).

There are no surface water drains on site or within the immediate vicinity of site. All site infrastructure (roads, surfacing, drainage systems and equipment) will be inspected on a weekly basis by the competent person. Any faults and repairs will be carried out as soon as practicable and a note made of them in the site diary.

With the exception of the storage of bales externally, all activities will take place internally within the onsite building. The building provides both secondary and tertiary containment. Any spillages, leaks or incidents arising within the buildings will be effectively contained and captured within the building footprint.

The only waste water emissions from the facility relate to small volumes of wastewater from the scrubbing and condensing systems which will be collected within dedicated tanks and removed from the site for treatment by third parties at a suitable licenced treatment facilities.

There are no emissions to sewer from the proposed facility.

### *Hardstanding*

The site is located entirely on good quality concrete hardstanding.

### *Tanks and Bunds*

All storage tanks associated with the process are constructed on sealed concrete hardstanding with secondary containment bunds in line with Environment Agency Pollution Prevention and CIRIA guidelines.

#### *4.1.4 Potential for Fugitive Releases to Soil, Groundwater and Surface Water*

The materials and substances used onsite are not considered to have significant potential to cause ground or groundwater contamination.

The following measures have been incorporated into the design of the facility to protect groundwater and soil from onsite substances;

- The entire area consists of good quality hardstanding;
- All waste storage will be located internally;
- Emergency Spill kits will be provided throughout the site and strategically placed in locations; and
- All potential contaminated runoff is captured within the building prior to removal offsite.

Due to the protection measures mentioned above, the risk to soil and groundwater from the development is considered to be LOW as summarised in the Conceptual Site Model below. In the unlikely event that any of the above measures fail, due to all activities being carried out on impermeable hard standing, there would be no impact to soil, groundwater and surface water.

**Table 4.4 Conceptual Site Model**

Contaminant Source	Contaminants of Concern	Pathway	Receptor	Exposure Pathway Present?	Likelihood of Risk
Contamination of the ground beneath site due to current and historical use	Specific contaminants associated with airfields, such as nitrogen oxides, unburnt hydrocarbons and various metals	Dermal contact, ingestion and inhalation of soils dust	Current Site Users	No – the entire area is complete hardstanding.	Low – Based on the historical land use it is likely the site has had an industrial past use. Whereas this could be a potential source of contamination almost all of the site is covered by hardstanding, breaking any source-pathway-receptor pollutant linkage. Based on this, and the current use of the site, it is considered the risk to current site users from ground contamination is low.
			Future Site Users	No – the entire area is complete hardstanding.	Low – Based on the historical land use it is likely the site has had an industrial past use. Whereas this could be a potential source of contamination almost all of the site is covered by hardstanding, breaking any source-pathway-receptor pollutant linkage. Based on this, and the anticipated industrial end use of the site, it is considered the risk to current site users from ground contamination is low.
			Construction Workers	Yes – Potential pathway during construction of the site, full PPE will be worn by workers during the construction phase to limit contact.	Low – It is considered that a low risk is likely to be present to construction workers during construction works. However, it is expected that exposure duration will be short-term only, and assuming appropriate health and safety measures are adopted low risk to construction workers is anticipated.
		Vertical or lateral migration of ground gases	Current Site Users	No – the entire area is complete hardstanding.	Low – Based on the anticipated ground conditions it is unlikely there will be an significant land gas bearing natural strata beneath the site. Therefore the risk to current site users from migrating ground gases is considered low.
			Future Land Users	No – the entire area is complete hardstanding.	Low – Based on the anticipated ground conditions it is unlikely there will be an significant land gas bearing natural strata beneath the site. Therefore the risk to future site users from migrating ground gases is considered low.

			Construction Workers	Yes – Potential pathway during construction of the site, full PPE will be worn by workers during the construction phase to limit contact.	Low – Based on the anticipated ground conditions it is unlikely there will be an significant land gas bearing natural strata beneath the site. Therefore the risk to construction workers from migrating ground gases is considered low.
		Vertical or horizontal migration of contamination via leaching into the underlying shallow groundwater	Controlled waters	No – considered low based on the ground conditions and the entire area being hardstanding.	Low - Based on historical use, anticipated ground conditions and distance to nearest surface water feature (>250m) it is considered the risk to controlled waters is low.
Substances either stored on site, used or generated during processing	Polluting substances stored onsite– hydrogen peroxide, sodium hydroxide, diesel, LPG, hydraulic and lubricating oils.	Spills/leaks	Soil	No – All potentially polluting materials on site will be stored and processed on hardstanding or within sealed tanks, with secondary containment where appropriate, essentially removing the potential for contamination of this receptor.	Low – All potentially polluting substances used at the facility are controlled by following strict risk assessment and guidance surrounding the storage, use and removal, thus reducing the risk. All processing takes place internally.
		Airborne, ingestion and inhalation	Human receptors	Yes – There is a pathway present for this pollution to occur, with the operation utilising potentially polluting substances.	Low – The management and guidance surrounding storage and use of contaminants helps to reduce this risk to low.



		Waterborne	Surface Water	Yes – There is a pathway present for this pollution to occur, with surface water runoff from the site having the potential to contain polluting substances.	Low – The site will adhere to strict control measures as outline within its EMS to reduce the risk of contamination of surface water run-off. All processing takes place internally.
		Waterborne	Ground Water	No – All potentially polluting materials on site will be stored and processed on hardstanding or within sealed tanks, with secondary containment where appropriate, essentially removing the potential for contamination of this receptor.	Low - All potentially polluting substances used at the facility are controlled by following strict risk assessment and guidance surrounding the storage, use and removal, thus reducing the risk. All processing and storage takes place internally with only sealed bales stored externally on hardstanding.

In addition, the site operates a comprehensive Environmental Management System which is summarised in the application support document.

Based on the historical use of the site, there is a potential contamination source. However based on the current and future proposed uses it can be determined the site is considered to be low risk for potential contamination.

#### 4.2 Non-permitted activities

There are no non-permitted activities undertaken on site.

#### 4.3 Site Plan

The site layout plan is provided in Section 2, Figure 2.2 of this SCR report and Annex A-Figures.

#### 4.4 Environmental and Climate Change Risk Assessment

A full Environmental and Climate Change Risk Assessment has been undertaken as part of the permit application. The risk assessment is held and maintained by Standard Gas and will be regularly reviewed and updated when necessary. The document is provided in Annex C\_SOL\_24\_P090\_STA\_E&CC Risk Assessment.

## 5. CHANGES TO THE ACTIVITY

This section will be updated in accordance with any required permit variations.

## 6. MEASURES TAKEN TO PROTECT LAND

The site has a number of pollution prevention and mitigation measures in place, and has implemented the following measures to protect the land:

- Sealed, impermeable hardstanding covering all areas of the site to prevent any accidental or incidental releases of contaminants to land.
- The site is subject to regular inspections by the site manager to ensure the concrete hardstanding remains in good condition and, where signs of degradation are detected, the necessary repairs will be undertaken. This is to ensure the site surface remains impermeable to contaminants, therefore preventing contamination of land.
- A comprehensive spills and leakages procedure is in operation on site to clean up any minor or major spills or leaks that may occur.
- All tanks will be bunded and installed with secondary containment which are designed to comply with EA guidance and CIRIA 736 and CIRIA C598.

This section will be updated throughout the life of the permit with any pollution and mitigation measures that have been implemented on site.

## 7. POLLUTION INCIDENTS AND REMEDIATION

This section will be completed throughout the life of the permit following any pollution incidents.

Currently there have been no pollution incidents or remediation work onsite.

## 8. SOIL GAS AND WATER QUALITY MONITORING

This section will be completed throughout the life of the permit with any soil, gas and water quality monitoring.

## 9. DECOMMISSIONING AND REMOVAL OF POLLUTION RISK

This section will be completed upon site surrender.

## 10. REFERENCE DATA AND REMEDIATION

This section will be completed upon site surrender.



## 11. STATEMENT OF SITE CONDITION

This section is for completion upon site surrender.

## APPENDIX A

## GROUND CONTAMINATION ASSESSMENT

February 2025