Permitting Decisions- Bespoke Permit

We have decided to grant the permit for Standard Gas operated by Standard Gas SG NO.1 Limited

The permit number is EPR/TP3529LW

The permit was granted on 17/04/2026

The application is for this permit is for a pyrolysis CHP plant, the listed activity is section 1.2 Part A(1)(f)(iv).

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 summarises the decision-making process to show how the main relevant factors have been taken into account.

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

- summarises the decision making process in the decision considerations section to show how the main relevant factors have been taken into account
- highlights key issues in the determination
- 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.

Key issues of the decision

1. Application

The application is for a plant that will pyrolyse RDF to produce cleaned cracked and cleaned syngas. The syngas will be burned in a series of CHP engines to generate power and provide heat to the wider Scottow Enterprise Park. It will treat about 50,000 tonnes of waste per year and generate approximately 5 MWe of electricity and 2.5 MWth of heat. The syngas will be cleaned to the extent that the requirements of IED chapter IV will not apply when it is burned.

The operator intends to demonstrate that the gas quality is equivalent to natural gas during commissioning, incineration emission limits will apply if this gas quality is not demonstrated.

The basis of the application is that the gas will meet the following from IED article 42, where IED chapter IV does not apply is the gas produced:

- purified to such an extent that they are no longer a waste prior to their incineration; and
- can cause emissions no higher than those resulting from the burning of natural gas.

2. Operating techniques and syngas quality
   We reviewed the techniques proposed by the applicant and compared them to those set out in report ‘Establishing a methodology that supports the assessment of the impact of ATT processes 31st March 2021’ (referred to below as ‘ATT guidance’).

   2.1. Process summary

RDF is pyrolysed in a rotating retort producing a syngas. The syngas goes through a two-stage heating/cracking process at 850ºC and then 1,150ºC to crack tars. After cracking the syngas is quenched and cooled before passing through a packed tower gas scrubber. A carbon filter is used for a final polishing step.

2.2. Waste specification and composition

The plant will only receive wastes under the following EWC codes and to the following specification.

19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
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

Parameter	Value
Calorific Value	10 – 30 MJ/kg
Density Requirements	250 kg/m³ - 350 kg/m³
Particle Size of Fuel	Individual particle size 30 mm in any direction (3D) ± 5mm
Fuel particle size requirements	• 90 % by weight less than 30 mm • 97 % by weight less than 35 mm
Moisture Content	< 35%, 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 applicant provided analysis of the waste that was being used for plant testing.

Parameter	Sample 001			Sample 002		
	As Received	Dry	Dry Ash Free	As Received	Dry	Dry Ash Free
Removed Ash Contributors (%)	0.0	-	-	0.0	-	-
Total Moisture (%)	7.6	-	-	7.7	-	-
Total Moisture (inc Ash Contributors) (%)	7.6	-	-	7.7	-	-
Ash (550°C) (%)	12.7	13.8	-	11.7	12.7	-
Sulphur (%)	0.23	0.24	0.28	0.20	0.22	0.25
Volatile Matter (%)	76.7	83.0	96.3	75.8	82.2	94.0
Volatile Matter (inc Ash Contributors) (%)	77.4	-	-	76.6	-	-
Gross Calorific Value (kJ/kg)	22310	24150	28020	20110	21790	24940
Net Calorific Value (kJ/kg)	20450	22330	-	18380	20110	-
Carbon (%)	49.80	53.90	62.54	48.93	53.01	60.67
Hydrogen (%)	7.83	8.48	9.84	7.20	7.80	8.92
Nitrogen (%)	0.40	0.43	0.50	0.86	0.93	1.06
Fixed Carbon (%)	3.0	3.2	3.7	4.8	5.1	5.9

Parameter	Sample 001			Sample 002		
	As Received	Dry	Dry Ash Free	As Received	Dry	Dry Ash Free
Dry Oxygen (%)	-	23.1	-	-	25.4	-
Antimony (mg/kg)	21.4	23.2	26.9	13.1	14.2	16.3
Arsenic (mg/kg)	<0.9	<1.0	<1.2	<0.9	<1.0	<1.2
Cadmium (mg/kg)	<0.4	<0.4	<0.5	<0.4	<0.4	<0.5
Chromium (mg/kg)	11.9	12.9	15.0	13.5	14.6	16.8
Cobalt (mg/kg)	2.5	2.7	3.2	2.1	2.3	2.7
Copper (mg/kg)	20.2	21.9	25.4	33.7	36.5	41.7
Lead (mg/kg)	5.3	5.8	6.7	5.7	6.2	7.1
Manganese (mg/kg)	19.3	20.9	24.2	36.9	40.0	45.8
Mercury (mg/kg)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel (mg/kg)	6.8	7.4	8.6	6.3	6.9	7.9
Thallium (mg/kg)	<0.9	<1.0	<1.2	<0.9	<1.0	<1.2
Tin (mg/kg)	4.8	5.2	6.0	10.9	11.8	13.5
Vanadium (mg/kg)	2.1	2.2	2.6	2.9	3.1	3.6

2.3. Syngas treatment steps

Thermal cracking

Syngas from the pyrolysis chamber is taken though a two-stage process of re-heating to 850ºC and then thermal cracking up 1,150 ºC. Residence time will be 8-11 seconds at above 1,050ºC. This heating and thermal cracking process removes tars and oils by breaking down long chain and aromatic hydrocarbons. The applicant has a manufacturer guarantee of a 95% tar removal efficiency at 1,000ºC.

Comparison with guidance

	Guidance	Applicant
Temperature	1,200ºC precise operating temperature depends on the hydrocarbons in the tar	1,150ºC
Residence time	Not quantified but listed as a critical parameter	8 to 11 seconds
Removal efficiency	Maximum of 85%	95%

Quench and scrubbing

The syngas is treated with a quench and physical absorption using wet scrubber system. An incline eductor scrubber acts as a rapid quench to cool the syngas which condenses moisture from the syngas. A packed tower scrubber is then used with pH controll using hydrogen peroxide and sodium hydroxide. The quench and scrubbing will convert H_2S to SO_2 and removes acid gases (SO_2, HCl, HF and H_2S) as well as residual tars and residual particulate materials. The

applicant's design specification is >99% for chlorides, SO_2, H_2S, ammonia and particulates.

Comparison with guidance

	Guidance	**Applicant**
Particulates	> 95%	> 99%
Halogenated compounds	90-99%	> 99%
Sulphur compounds	Not specified	>99% for SO_2

2.4. Activated carbon

A final polishing step. Applicant describes it as BAT for removal of organic compounds and metals. The manufacturers warranted removal efficiencies are:

- Benzene and H_2S: >99%
- Ammonia: >99%
- Carbonyl Sulphide: >90%
- Trace Metals: >90%

Our guidance states that activated carbon is a final polishing step for dust, tars, sulphur compounds, HCN and metals. An efficiency of up to 90% is stated for mercury

1.5 syngas testing

In the application submitted on 1 May 2025 the applicant stated that syngas testing results would be provided during determination.

We issued a Schedule 5 notice on 04/09/25 which required the applicant to submit gas testing results for both raw and cleaned syngas. We agreed a response date with the applicant of 30 November 2025. The applicant provided a response but stated that due to plant changes the testing had been delayed and that both raw and cleaned gas results would be provided when available.

We issued a second Schedule 5 notice on 15/12/25 with an extended deadline of 14/2/26 to provide the test results for both raw and cleaned syngas. We also gave the applicant the alternative option of calculating syngas quality using raw gas composition and clean-up system efficiency and/or provide gas data from other similar plants. The applicant's response is summarised below.

Testing results are not available.

Theoretical information was provided, although this was not presented in the way we had requested. The applicant stated that there is no 'before' and 'after' [i.e. raw] syngas produced by the plant. The syngas composition is progressively thermally and chemically transformed throughout the various stages of the

pyrolysis process until a final quality syngas is produced, so that there is no ‘before-and-after’ comparison as the mechanisms by which the syngas is transformed is complex. The applicant also said that syngas monitoring data for other plant and technologies is not relevant to this application and have therefore not been provided

The applicant stated that the equipment manufacturer is under contract to Standard Gas to provide a plant that performs in accordance with an agreed plant design and mass balance. The mass balance that forms part of the contract requires a gas cleanliness that meets the natural gas specification.

The applicant provided an extract from the mass balance to show the warranted gas quality based on a particular RDF feedstock (FS-06). The heat and mass balance for this feedstock was HMEB08.

There were some anomalies with their summary of gas composition.

The following physical properties were provided which are not consistent with a gas.

- Vapour fraction - zero
- Molecular weight -18.0165
- Density – 1005.6574 kg/m3

Mole percentage data on composition was also provided.

We checked the full mass balance provided by the applicant. The physical properties appeared to have been taken from the of the cooling system streams. The mole percentage information appears to be from syngas within the pyrolysis retort.

We did own checks within the full mass balance. In HMEB08 the data under column 4005 is labelled as syngas export. 4005 matches up with the export point on the applicant’s PFD.

The syngas had the following physical properties:

- Vapour fraction – 1.0000
- Molecular weight – 29.9043
- Density – 1.0393 kg/m^3

Syngas 4005 mole percentage data (for key substances) from the mass balance is shown below. We converted the mole fractions into concentrations. The concentrations are estimates because the conversions did not take temperature and pressure into account. Nevertheless, they are useful for comparison with our natural gas specification.

Parameter	Molecular weight	Mole %	mg/m^3
Syngas	23.9043		
Benzene	78.11	0.0604	2051
Sulphur dioxide	64.06	0.1772	4935
Hydrogen sulphide	34.08	0	0
Hydrogen chloride	36.46	0	0
Nitrogen	14.01	0.6091	3710

Some substances from our natural gas specification were not included in the applicant's mass balance those are metals, total aromatics, hydrogen fluoride, total sulphur and total halogenated hydrocarbons.

Benzene and sulphur dioxide are a long way above the natural gas specification for total aromatics and total sulphur respectively.

The data in the mass balance for hydrogen sulphide and hydrogen chloride is unusual, with mass balance HMEB08 showing the mole % as zero at all stages of the process. Pyrolysis of RDF would produce both these substances and should be present in the syngas, especially the raw syngas.

Conclusions

Our natural gas specification is shown below.

Parameter	Limit (mg/m^3)
Total sulphur	3.85
Hydrogen sulphide	0.4
Total halogenated hydrocarbons	0.07
Metals (Hg, Cd, Tl, Sb, As, Pb, Cr, Co, Cu, Mn, Ni, and V and their compounds (Total)	0.16
Total aromatics (as xylene)	2.6
Hydrogen fluoride	5
Hydrogen chloride	1.5
Calorific value	Monitored and syngas results adjusted accordingly

Based on our guidance the syngas clean-up process is consistent with what we would expect for substances likely to be in the syngas.

The mass balance provided did not demonstrate that the syngas will meet our natural gas specification.

The applicant stated that that the equipment manufacturer is under contract to Standard Gas to provide a plant that can produce syngas that meets our natural gas specification.

The applicant will carry out testing of gas quality during plant commissioning. Pre-operational condition PO01 requires a commissioning plan to be submitted and approved by us and IC01 requires the operator to submit syngas quality testing results to us along with details of process monitoring parameters of the syngas cleaning equipment. The permit includes conditions that will implement incineration emission limits if the syngas is not shown to meet our natural gas specification. IC01 also requires the operator to submit a syngas quality protocol for our approval. The protocol will include measures to ensure that syngas quality will continue to meet the natural gas specification, such as on-going gas testing and process monitoring. If the applicant demonstrates during commissioning that the syngas meets our natural gas specification then combustion emission limits will apply. For on-going operation this will be based on the plant operating in line with the protocol.

The purpose of the plant is production of a syngas that meets our natural gas specification. Our view is that the most apt listed activity is 1.2 A(1) (f)(iv) – pyrolysis of other carbonaceous material.

All of the syngas that is produced from the waste feed is burned so the capacity of the plant should be based on waste feed to the gasifier. The feed is >3 tonne per hour, so BAT AELs will apply in addition to IED chapter IV limits.

Emission limits

Prior to completion of improvement condition IC02 incineration BAT AELs and IED chapter IV limits will apply. The application was based on IED chapter IV limits, but as set out above our view is that BAT AELs apply as well. Based on the process and the information in the application these limits should be achievable. The oxides of nitrogen (NOx) daily average BAT AEL is limit of 120 mg/m^3 at 11% oxygen and we expect new plants to meet an ELV of 100 mg/m^3.

Process monitoring

We have set several process monitoring requirements in table S3.3 of the permit. The monitoring relates to the syngas cleaning system.

Improvement conditions

Improvement condition IC02 gives the operator the opportunity to demonstrate that the syngas is equivalent to natural gas through sampling and testing. The improvement condition also requires the operator to determine the syngas cleaning operating parameters that will ensure syngas meets this standard.

If the IC is completed to our agreement incineration limits and permit conditions will not apply. As well as testing the IC requires the operator to establish syngas cleaning operating parameters that will ensure the syngas is clean. The permit then requires the operator to stop feeding waste if the cleaning system is operating outside of those parameters.

3. Air quality assessment

The applicant carried out dispersion modelling, using ADMS, for combustion emissions from the pyrolysis plant and the CHP engines. Emissions were based on MCPD limits for operation where the syngas meets the natural gas specification. The modelling also considered the situation where out of specification syngas is burned which was based on IED chapter IV emission limits. The modelling showed the highest modelled impact as well as at individual receptors. The tables below show the highest impact at a receptor

3.1. Human Health

3.1.1. Operation with combustion emission limits

Pollutant	**ES**		**Back-ground**	**Process Contribution (PC)**		**Predicted Environmental Concentration (PEC)**	
	µg/m³	**Reference period**	**µg/m³**	**µg/m³**	**% of EAL**	**µg/m³**	**% of EAL**
NO_2	40	Annual Mean	12.1	0.93	2.33	13.0	32.6
	200	99.79th %ile of 1-hour means	24.2	17.5	8.8	41.7	20.9

3.1.2. Operation with incineration emission limits

Pollutant	ES		Back-ground	Process Contribution (PC)		Predicted Environmental Concentration (PEC)	
	µg/m³	Reference period	µg/m³	µg/m³	% of EAL	µg/m³	% of EAL
NO_2	40	Annual Mean	12.1	1.5	3.75	13.6	34.0
	200	99.79th %ile of 1-hour means	24.2	27.4	13.7	51.6	25.8
PM_{10}	40	Annual Mean	12.4	0.11	0.28	12.5	31.3
	50	90.41st %ile of 24-hour means	14.6	0.33	0.66	14.93	29.9
$PM_{2.5}$	20	Annual Mean	5.6	0.11	0.55	5.71	28.6
SO_2	266	99.9th %ile of 15-min means	35.5	21.1	7.9	56.6	21.3
	350	99.73rd %ile of 1-hour means	32.2	19.5	5.57	51.7	14.8
	125	99.18th %ile of 24-hour means	2.5	10.6	8.5	13.1	10.5
HCl	750	1-hour average	0.66	4.3	0.57	5.0	0.66
HF	16	Monthly average	0.2	0.074	0.46	0.274	1.71
	160	1-hour average	0.2	0.43	0.26875	0.63	0.4
CO	10000	Maximum daily running 8-hour mean	371	19.0	0.19	390	3.9
	30000	1-hour average	530	21.7	0.07	552	1.8
TOC	2.25	Annual Mean (butadiene)	0.11	0.11	4.89	0.22	9.78
	30	Daily average (benzene)	0.13	2.7	9.00	2.83	9.43

Pollutant	ES		Back-ground	Process Contribution (PC)		Predicted Environmental Concentration (PEC)	
	µg/m³	Reference period	µg/m³	µg/m³	% of EAL	µg/m³	% of EAL
	2.25	24 Hour Mean (Short Term) (butadiene)	0.11	2.7	120.00	2.81	124.89
PAH	0.00025	Annual Mean	0.00011	9.9E-07	0.40	0.00011	44.4
PCBs	0.2	Annual Mean	0.000024	0.000055	0.03	0.00008	0.04
	6	1-hour average	0.000048	0.00109	0.002	0.00114	0.02

Pollutant	ES		Back-ground	Process Contribution		Predicted Environmental Concentration	
	ng/m³	Reference period	ng/m³	ng/m³	% of EAL	ng/m³	% of EAL
Cd	5	Annual mean	0.085	2.2	44.0	2.29	45.7
	30	24 hour mean (short term)	0.1	22.7	75.7	22.80	76.0
Hg	600	1-hour mean (short term)	3.2	22.7	3.78	25.90	4.32
	60	24 hour mean (long term)	5.4	29.5	49.17	34.90	58.17
Sb	5000	Annual mean		21.7	0.43	21.70	0.43
	150000	1-hour average		295	0.20	295.00	0.197
Pb	250	Annual mean	2.9	21.7	8.68	24.60	9.84
Cu	50	24 hour mean (long term)	2	227	454.00	229.00	458.000
Mn	150	Annual mean	3	21.7	14.47	24.70	16.47

Pollutant	ES		Back-ground	Process Contribution		Predicted Environmental Concentration	
	ng/m^3	Reference period	ng/m^3	ng/m^3	% of EAL	ng/m^3	% of EAL
	1500000	1-hour average	6	295	0.020	301.00	0.02
V	1000	24-hr average (short term)	1.3	227	22.70	228.30	22.83
As	6	Annual mean	0.55	21.7	361.67	22.25	370.8
Cr (II)(III)	2000	24 hour mean (long term)	0.64	227	11.35	227.64	11.382
Cr (VI)	0.25	Annual mean	0.11	4.3	1720.00	4.41	1764.0
Ni	20	Annual mean	0.61	21.7	108.50	22.31	111.6
	700	1-hour mean	1.2	295	42.14	296.20	42.3

3.1.3. Conclusions

Following an audit of the modelling data, we are satisfied that there are no exceedances of the relevant ES and there will be significant pollution.

The Environment Agency guidance note for the assessment of Group III metals provides measured concentrations of emissions of metals from waste Incinerators. In accordance with the guidance note, revised concentrations for As, Cr(VI), Cu and Ni have been predicted using the maximum measured emission concentration. On the basis of Step 2 of the assessment, no further assessment is required. Although the PCs for all four metals exceed 1% of the respective AQAL, the PECs are all well below 100% of the AQA.

For 24-hour VOCs, specifically 1,3-butadiene, the table above shows the PC exceeds the environmental standard (ES) at the locations of maximum impact and at the maximally impacted receptors D1 and D3. However, these receptors are commercial or industrial sites, not relevant for public exposure. At D4, the receptor relevant to public exposure (HM Prison Bure), the PEC does not exceed the ES.

The applicant assessed the impact of dioxin, furan and dioxin-like PCBs using HHRA.
Our checks indicate that the PC of dioxins, furans and dioxin-like PCBs will be below 10% of the Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT) Tolerable Daily Intake (TDI). Therefore,

these exposures are not considered a significant risk to health, in line with advice from the UK Health Security Agency (UKHSA).

3.2. Ecological sites

3.2.1. SAC/SPA/Ramsar

Critical levels				
Site	**Pollutant**	**Cl (µg/m³)**	**PC (µg/m3)**	**%Cl**
The Broads SAC	NOx annual mean	30	0.071	0.24
	NOx 24 hour mean	75	0.63	0.84
	SO2 annual mean	10	0.018	0.18
	HF weekly mean	0.5	0.0014	0.28
	HF 24 hour mean	5	0.0031	0.06
Broadland SPA/Ramsar	NOx annual mean	30	0.071	0.24
	NOx 24 hour mean	75	0.63	0.84
	SO2 annual mean	10	0.018	0.18
	HF weekly mean	0.5	0.0014	0.28
	HF 24 hour mean	5	0.0031	0.06
Norfolk Valley Fens SAC	NOx annual mean	30	0.023	0.08
	NOx 24 hour mean	75	0.52	0.69
	SO2 annual mean	10	0.0057	0.06
	HF weekly mean	0.5	0.00081	0.16
	HF 24 hour mean	5	0.0026	0.05

Critical loads				
Site	**Pollutant**	**CLo**	**PC**	**PC % of Clo**
The Broads SAC	N deposition	5 kgN/ha/Yr	0.01 kgN/ha/yr	0.2
	Acid deposition	0.497 keq/ha/yr	0.0039 kgN/ha/yr	0.78
Broadland SPA/Ramsar	N deposition	5 kgN/ha/Yr	0.01 kgN/ha/yr	0.2
	Acid deposition	0.837 keq/ha/yr	0.0039 kgN/ha/yr	0.47
Norfolk Valley Fens SAC	N deposition	5 kgN/ha/Yr	0.0033 kgN/ha/yr	0.066
	Acid deposition	0.514 keq/ha/yr	0.0012 kgN/ha/yr	0.23

Our audit of the modelling and found that the process PCs were less than 1% and 10% of the long-term and short-term critical levels and loads, respectively. Based on these results, we concluded that there is no likely significant effect on Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). A Habitats Regulations Assessment (HRA) Stage 1 was sent to Natural England for information only.

3.2.2. Other conservation sites

PCs are all less than the critical levels and loads and so we are satisfied that there will be no significant impacts.

4. Odour

Odour control measures were set out in the application and in an odour management plan (OMP). The applicant stated that odour risk is low but an OMP was still submitted.

The key control measures are summarised below:

- Pre-acceptance procedures to ensure malodorous waste are not received
- Waste inspected to ensure not malodorous
- Air from building extracted through combustion plant
- Only baled waste is stored outdoors and will be wrapped in 6 layers
- Damaged bales will be removed from site or moved into the building for processing
- Inspections twice per day
- Daily olfactory monitoring at the site boundary
- Procedures to investigate and rectify is odour issues were to occur
- Maintenance procedures
- Critical equipment spares kept onsite

- Complaints procedure

We are satisfied with the proposed measures and that there is unlikely to be a significant impact from odour.

5. Containment measures

The entire site area comprises concrete hardstanding with no ‘soft’ ground being present within the installation boundary. All waste will either be delivered to site loose or in pre-prepared sealed bales. Bales will either be stored externally within a designated sealed storage area or internally within the main processing building. All loose waste will be stored internally within a dedicated bay within the main processing building.

Raw materials will be stored in sealed container or IBCs. The site is entirely sealed hardstanding with fully contained and sealed drainage.

Waste water will be stored in tanks. The tanks will be installed with secondary containment and be designed to comply with the following:

- Environment Agency - Pollution prevention for businesses
- Environment Agency - Report an Environmental incident
- CIRIA 736: Design of containment systems for the prevention of Water Pollution from Industrial sites
- CIRIA C598: Chemical storage tank systems – good practice.

Based upon the information in the Application we are satisfied that appropriate measures will be in place to prevent pollution of land or water.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

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

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

- North Norfolk District Council – Environmental Protection Department
- Broadland District Council – Environmental Protection Department
- North Norfolk District Council – Planning
- Norfolk County Council – Planning
- Fire & Rescue
- Director of PH/UKHSA
- Health and Safety Executive
- Food Standards Agency

The comments and our responses are summarised in the consultation responses section.

Operator

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 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 RGN2 ‘Defining the scope of the installation’, Appendix 1 of RGN 2 ‘Interpretation of Schedule 1.

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

The operator has provided plans which we consider to be satisfactory. These show the extent of the site of the facility.

A 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 not satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

The Site Condition Report of 1st May 2025 (reference: SOL_24_P090_STA) and associated Ground Contamination Assessment Report of February 2025 (reference: B4395/25) include details of the environmental setting, pollution history and historic contamination. No significant contamination has been identified, with soil investigations returning all concentrations below the relevant screening levels for commercial land use. However, based on the site history as an airfield we recommend that the applicant investigates PFAS as a potential contaminant of concern. Baseline data could be beneficial to the applicant at permit surrender stage, to evidence that their activities have not made ground conditions worse during the lifetime of the permit.

We have advised the operator what measures they need to take to improve the site condition report.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator’s risk assessment is satisfactory.

Operating techniques

We have reviewed the techniques proposed by the operator and compared these with the relevant technical guidance and we consider them to represent BAT for the facility. **Seek key issues section for more details.**

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

National Air Pollution Control Programme

||We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Odour management

We have reviewed the odour management plan in accordance with our guidance on odour management.

We consider that the odour management plan is satisfactory and we approve this plan.

We have approved the odour management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the

measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance ‘Control and monitor emissions for your environmental permit’.

The plan has been incorporated into the operating techniques S1.2.

Fire Prevention Plan

We have assessed the fire prevention plan and are satisfied that it meets the measures and objectives set out in the Fire Prevention Plan guidance.

The plan has been incorporated into the operating techniques S1.2.

Raw materials

We have specified limits and controls on the use of raw materials and fuels.

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

We are satisfied that the operator can accept these wastes for the following reasons:

- they are suitable for the proposed activities
- the proposed infrastructure is appropriate; and
- the environmental risk assessment is acceptable.

Pre-operational conditions

Based on the information in the application, we consider that we need to include pre-operational conditions. See key issues section for further details.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme. See key issues section for further details.

Emission Limits

Emission Limit Values (ELVs) and equivalent parameters or technical measures based on Best Available Techniques (BAT) have been included in the permit. See key issues section for further details.

Monitoring

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified. See key issues section.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

Reporting

We have specified reporting in the permit.

Management System

We are not aware of any 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.

We only review a summary of the management system during determination. The applicant submitted their full management system. We have therefore only reviewed the summary points.

A full review of the management system is undertaken during compliance checks.

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

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 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 Responses

The following summarises the responses to consultation with other organisations, 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 North Norfolk District Council

Brief summary of issues raised

The council provided information on the local area including rainfall, location of ecological receptors and planning history for the site.

Summary of actions taken

Ecological receptors have been assessed, see section 2.2. No action required

Response received from UKHSA

Brief summary of issues raised

UKHSA has no significant concerns regarding the risk to the health of the local population from the installation

Summary of actions taken

No action required