Permitting decisions

Bespoke permit

We have decided to grant the permit for Viridis 178 Red Scar operated by Viridis 178 Limited.

The permit number is EPR-WP3633DL

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 in the decision checklist to show how all relevant factors have been taken in to account.

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

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

And

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

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

Key issues of the decision

1. Description of the main features of the application

The proposed facility will serve the Balancing Market on the electricity grid by rapidly providing additional short term supply to meet peak demand or shortfalls in available supply from other sources. It consists of up to 27 type Jenbacher JGC 420 GS-N.L spark ignition gas-fired engines. The aggregated thermal input of the 27 engines is 97.18MW. Natural gas will be utilised as the fuel.

2. Operating Hours

The application was originally for up to 2000 hours of operation each year. Current guidance on developing best available techniques (BAT) to serve the balancing market identifies two categories; less than 500hrs and up to 1,500hrs. There is currently no guidance for the operation of this type of plant beyond 1,500hrs.

Air modelling and the noise assessment submitted has been based on 1,750 hours of operation only. Our assessment of air emissions identified a potential exceedence of the daily NOx (Oxides of Nitrogen) critical level at the Wildlife Site at Pope Lane Ponds and Fishwick Bottoms LNR. Following our concerns the applicant subsequently opted to reduce both the maximum hours of operation in any one day from 17 hours to 12 hours (between 6 am and 11.00pm) and to reduce the annual hours of operation to 1500. These revised hours of operation have been set out condition 2.3.4 of the permit. See also section 5 below.

3. Chapter III of the IED

Chapter III of the Industrial Emissions Directive (IED) applies to new and existing large combustion plants (LCPs) which have a total rated thermal input which is greater or equal to 50MW. Articles 28 and 29 explain exclusions to Chapter III and aggregation rules respectively.

The aggregation rule is as follows:

- A LCP has a total rated thermal input ≥50MWth.
- Where waste gases from two or more separate combustion plant discharge through a common windshield, the combination formed by the plants are considered as a single large combustion plant.
- The size of the LCP is calculated by adding the capacities of the plant discharging through the common windshield disregarding any units <15MWth.

A “common windshield” is frequently referred to as a common structure or windshield and may contain one or more flues. In this application, emissions shall be released via 6 stacks, 4 containing 4 flues (3.599 x MW), 1 containing 5 flues (3.599 x 15MW) and 1 containing 6 flues. It is, therefore, a common structure containing one or more flues.

As the combustion plant on the installation is composed of 27 x 3.599 MWth engines it does not form part of an LCP and so do not come under chapter III requirements. Nevertheless, they will still aggregate to be part of the Section 1.1 A(1)(a) activity listed in Schedule 1 of the Environmental Permitting regulations because they have a rated thermal input of 50MW or over. The installation is therefore a Chapter II installation and subject to the Medium Combustion Plant Directive (as the engines are over 1MWth capacity).

4. BAT assessment

Combustion of combustion unit

The Applicant (now the Operator) carried out a review of the following candidate combustion technologies and made an assessment of the technology in order to determine which technology can be considered the best available technique (BAT). This is detailed in document Technical Supporting Information Final report 18397i1 August 2018.

- Combined Cycle Gas Turbines (CCGT)
- Open Cycle Gas Turbines (OCGT)
- Gas Engines (GE)
- Diesel Engines (DE)

Based on the results of this assessment, the Applicant has chosen Jenbacher Spark Ignition Gas Engines for the following reasons:

- Generation output is achieved within two minutes of start-up;
- Electrical generation efficiency is greater than alternative options;

- There is no requirement for on-site fuel storage;
- The achievement of Medium Combustion Plant Directive (MCPD) limits without the need for secondary abatement or Exhaust Gas Recirculation (EGR);
- Electronic engine management system for continuous control;
- The engines meet the operational criteria for the balancing market.

Choice of Fuel

The Applicant has chosen natural gas as this represents the most reliable and least polluting fuel available for use at the site. By using natural gas, there will be negligible emissions of sulphur and particulates and by operating in a lean burn mode, the quantities of Nitrogen oxides emitted comply with the Medium Combustion Plant Directive for new gas fuelled engines.

The choice of natural gas only (not dual fuel) also minimises the need to store significant quantities of raw materials on-site. We are satisfied that mains supply natural gas represents BAT in terms of fuel choice for this installation.

Primary emissions Controls

The Applicant has demonstrated sufficient primary emission controls are in place through the use of a computerised management system. This controls the emissions of Nitrogen Oxides by continuously adjusting the operating requirements of the engines to achieve the emission limits through Enhanced Lean Burn.

Assessment against BAT standards for the energy balancing market

The Applicant considered a range of abatement systems. These included:

- Exhaust Gas Recirculation (Primary measure)
- Water Injection (Primary measure)
- Selective Catalytic Reduction (SCR) (Secondary measure)
- Non Selective Catalytic Reduction (NSCR) (Secondary measure)
- Lean NOx Trap (LNT) Catalysis (Secondary measure)

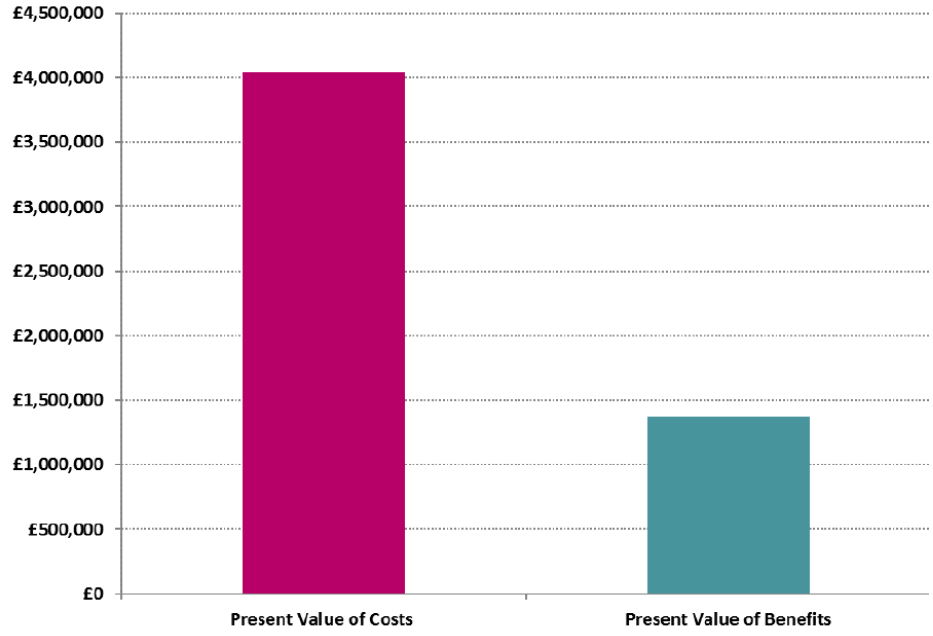
Full details of the assessments are contained in pages 40-48 of the technical supporting information document ref 39225 Final Report 18397i1. The conclusions regarding suitability are summarised as:

- Exhaust Gas Recirculation (Primary measure) is not suitable for lean burn gas engines as it reduces full load efficiency;
- Water injection for reciprocating engines is limited to Compression Ignition only;
- Selective Catalytic Reduction capital and operating costs are disproportionate to the environmental benefit;
- Non Selective Catalytic Reduction is only effective under stoichiometric or fuel rich operating conditions where the combustion gas is nearly depleted in oxygen. It is therefore unsuitable for lean-burn gas engines;
- Lean NOx Trap (LNT) Catalysis is a recently new technique for natural gas engines, which is still emerging. There are currently very few, if any, suppliers that offer this technology in the UK market.

The applicants states that they have assessed the BAT standards against Environment Agency guidance How to comply with your environmental permit, Version 6 June 2013 (withdrawn 1 February 2016). We have compared the proposals to the Department of Energy & Climate Change Developing Best Available Techniques for Combustion Plants Operating in the Balancing Market Final Report dated June 2016.

The operator provided a BAT assessment for using SCR to abate emissions on NOx. The assessment showed that the cost of SCR would have a CAPEX of £1,013,175 and an annual operating cost of £178,000 with a reduction in NOx of 51 tonnes per year. Damage costs were calculated and presented in the table below. Based on the figures the operator stated that the costs are considered to be disproportionate and the installation of SCR for small potential reduction in NOx emissions, is not considered BAT. We agree with the operator's assessment that the costs of SCR are disproportionate to the benefits.

Figure 4.4 Costs and Benefits of Installation SCR on the Spark Ignition Engines operating for 2,000 hours per year



The document 'Developing Best Available Techniques for Combustion Plants Operating in the Balancing Market' states that SCR is not BAT for plants operating for <1500 hours. BAT is stated to be enhanced lean burn engines capable of achieving 95 mg/m^3 (15% O2) of NOx.

We are satisfied the spark ignition engines exceed the minimum efficiency for electrical generation and the NOx emissions will achieve less than 95 mg/m^3 and comply with the Medium Combustion Plant Directive.

BAT for Stack Height

The Installation comprises 27 spark ignition engines, each housed in an individual container and each requiring a separate flue. Emissions from the engines are described in the application as via 6 stacks, each containing either 4, 5 or 6 individual flues of 10 metres in height. We asked the applicant to justify site layout and configuration of engines, transformers and emission points. The Applicant responded by referring to the submitted Air Dispersion Modelling, which concludes that there is unlikely to be an exceedence of any Environmental Quality Standard (EQS') for oxides of Nitrogen (NOx) or Carbon Monoxide (CO2) at any non-Air Quality Management Area (AQMA) receptors; and also process contributions (PCs) are insignificant, i.e. the long-term process contribution is less than 1% of the relevant ES and the short-term process contribution is less than 10% of the relevant ES at the AQMA. We agree with this assessment and are therefore satisfied the engine and stack arrangement represent BAT for the location. The assessment demonstrated that an increase in stack height would not result in a significant reduction in process contribution of oxides of nitrogen from the process.

Human Receptors

The Applicant's modelling predictions are presented in Table 1 below. The figures shown indicate the predicted peak ground level exposure to pollutants in ambient air at the nearest sensitive receptor. We have made our own verification of the percentage process contribution/deposition and predicted environmental concentrations submitted by the Applicant. These may be slightly different to those shown in the Application. Any such minor discrepancies do not materially impact on our conclusions.

Table 1 Maximum modelled nitrogen dioxide concentrations at the most sensitive human receptors.

Pollutant	EQS / EAL	Back-ground	Process Contribution (PC)		Predicted Environmental Concentration (PEC)	
	µg/m3	µg/m3	µg/m3	% of EAL	µg/m3	% of EAL
NO_x Annual, Yewtree Avenue	40 [1]	18.85	0.7	1.75	19.55	48.875
NO_x, Scrap Car Network Car Park	200 [2]	37.7	74.12	37.06	111.82	55.91

[1] Annual Mean

[2] 99.79th %ile of 1-hour means

From Table 1, nitrogen dioxide cannot be screened out as insignificant in that the process contribution is >1% of the long term EQS/EAL and >10% of the short term EAQ/EAL.

Although nitrogen dioxide did not screen out as insignificant, we consider that emissions are not significant because the predicted environmental concentration (PEC) is less than 70% of both the long term and short term EQS/EAL.

We have checked the modelling data and our results are consistent with the Applicant's assessment. The conclusion is that there will be no significant impact on human health caused by the operation of this installation.

5. Impact on Habitats sites, SSSIs, non-statutory conservation sites etc.

Sites Considered

The following Habitats (i.e. Special Areas of Conservation, Special Protection Areas and Ramsar) sites are located within 10Km of the Installation:

There are no Habitats (i.e. Special Areas of Conservation, Special Protection Areas and Ramsar) sites within 10Km of the proposed Installation.

The following Sites of Special Scientific Interest are located within 2Km of the Installation:

- Red Scar and Tun Brook Woods

The following non-statutory local wildlife and conservation sites are located within 2Km of the Installation:

- Local Nature Reserve (LNR) Pope Land Open Space, Hills and Hollows, Grange Valley
- Local Wildlife Sites (LWS) Higher Brockholes, Eyes Wood, Brockholes Wood, Pope Lane Ponds, Brockholes Quarry, River Ribble (from London Road Bridge Preston, in West, to County Boundary, in East,) Sandy Brook
- Ancient Woodland Brockholes Wood, Red Scar/Tun Brook Woods

SSSI Assessment

The applicant undertook air dispersion modelling using ADMS 5, version 5.2 to look at the impact of emissions of NOx, nutrient nitrogen and acidity critical load from operation of the 27 gas engines on the Red Scar and Tun Brook Woods SSSI. The modelling has shown the PCs are above 1% and 10% of the long-term and short-term NOx critical levels, respectively but the PECs indicate that the critical levels will not be exceeded at the SSSI. They predict nutrient nitrogen PCs at the SSSI above the threshold at 1.17% of the critical load. They predict that PECs for nutrient nitrogen are exceeding at the site, but the consultant (on behalf of the applicant) concludes that this is due to the background nutrient nitrogen deposition being very high, and "… the PC makes a very small contribution". They predict that the acid deposition PCs are below the 1% threshold at the SSSI, and therefore have insignificant impacts.

In our predictions when considering both 1500 hours and 2000 hours operation per year, we agree with applicant and find that the PCs to the annual NOx critical level would be above the 1% threshold at Red Scar and Tun Brook Woods SSSI, but that PECs would not exceed the ES of 30 ug/m3.

However, in respect of nutrient nitrogen and acidity critical loads we do not agree and find that at some locations within the Red Scar and Tun Brook Woods SSSI that are immediately to the east of the dispersion site the impact will not be insignificant. This is attributed to the background concentrations already exceeding the relevant critical loads, PECs were above these levels. It is though unclear whether the parts of Red Scar and Tun Brook Woods SSSI immediately east of the dispersion site are sensitive to acid and nutrient nitrogen deposition.

The operator has updated the dispersion modelling from the original application, RedScar Power Plant Air Quality Impact Assessment Addendum, March 2019.

Table 2 Impact at Red Scar and Tun Brook Woods SSSI.

Pollutant	**ES(µg/m³)**	**Back-ground (µg/m³)**	**Process Contribution(PC) (µg/m³)**	**PC as % of ES**	**Predicted Environmental Concentration (PEC) (µg/m³)**	**PEC as % ES**
Direct Impacts[1]						
NO_x Annual	30	15.2	0.58	1.93	15.78	52.6
NO_x Daily Mean	75	30.4	18.48	18.13	44	59
Deposition Impacts						
	Minimum Critical load ($KgNHa^{-1}y^{-1}$)	**Background**	**PC($KgNHa^{-1}y^{-1}$)**	**PC %of Clo**	**PEDR**	**% PEDR of critical load**
N Deposition (kg N/ha/yr)	10	40.18	0.12	1.17	40.3	403

[1] Direct impact units are µg/m³ and deposition impact units are kg N/ha/yr or Keq/ha/yr

	Minimum Critical load ($KgNHa^{-1}y^{-1}$)	Background	PC($KgNHa^{-1}y^{-1}$)	PC %of Clo	PEDR	% PEDR of critical load
Acidification	Max CLF CLminN:.357 CLmaxN: 2.711 CLmaxS: 2.569	Acid Deposition Nitrogen | Sulphur (keq/ha/yr): Maximum: 3.13|0.44 Minimum: 3.13|0.44 Average: 3.13	0.01	0.32		67
	Min CLF CLminN: .142 CLmaxN: 1.707 CLmaxS: 1.446			0.73		229

The maximum and minimum predicted acidification rate at Red Scar and Tun Brook Woods SSSI is <1% of the maximum CLo range and is therefore considered insignificant. The nutrient nitrogen PCs at the SSSI remain above the threshold at 1.17% of the critical load.

The report has been reviewed by the Environment Agency's technical specialists for modelling, air quality, conservation and ecology technical services and even though the process contribution could potentially exceed the critical level thresholds, due to the conservative approach taken by the operator, the small PC in relation to the background and the type and distribution of protected features we are satisfied the emissions from the proposed plant are unlikely to result in a significant impact on the features of the protected site for the following reasons:

Modelling was based on worst case scenario assuming all 27 engines are in operation for 1500 hours, operating continually during the worst case 12 hours of meteorological conditions, which is very unlikely. In reality the site will run sporadically throughout the year based on demand from the National Grid so operation periods will be shorter.

The operator's management systems and operation strategy is that the plant will only operate for up to 1500 hours a year between the hours of 06:00 – 23:00 only.

We are only permitting the plant to operate for no more than 1,500 hours per year per engine as a rolling average over a period of five years and with operation of any one engine in any individual year limited to a maximum of 2,000 hours.

The plant will operate to the standards outlined in document 'Developing Best Available Techniques for Combustion Plants Operating in the Balancing Market' using enhanced lean burn engines capable of achieving 95 mg/m3 (15% O2) of NOx. We have assumed that the parts of Red Scar and Tun Brook Woods SSSI immediately east of the dispersion site are NOT sensitive to acid and nutrient nitrogen deposition.

The Environment Agency (EA) sent Formal Notice to Natural England (NE) for consultation on 1st February 2019 under the requirements of Section 28I of the Wildlife and Countryside Act 1981 as amended by the

Countryside and Rights of Way Act (CRoW) 2000. As is our duty in relation to granting any consent, licence or permit for activities likely to damage Sites of Special Scientific Interest (SSSI).

Assessment of other conservation sites

Conservation sites are protected in law by legislation. The Habitats Directive provides the highest level of protection for SACs and SPAs, domestic legislation provides a lower but important level of protection for SSSIs. Finally the Environment Act provides more generalised protection for flora and fauna rather than for specifically named conservation designations. It is under the Environment Act that we assess other sites (such as local wildlife sites) which prevents us from permitting something that will result in significant pollution; and which offers levels of protection proportionate with other European and national legislation. However, it should not be assumed that because levels of protection are less stringent for these other sites that they are not of considerable importance. Local sites link and support EU and national nature conservation sites together and hence help to maintain the UK's biodiversity resilience.

For SACs SPAs, Ramsars and SSSIs we consider the contribution PC and the background levels in making an assessment of impact. In assessing these other sites under the Environment Act we look at the impact from the Installation alone in order to determine whether it would cause significant pollution. This is a proportionate approach, in line with the levels of protection offered by the conservation legislation to protect these other sites (which are generally more numerous than Natura 2000 or SSSIs) whilst ensuring that we do not restrict development.

Critical levels and loads are set to protect the most vulnerable habitat types. Thresholds change in accordance with the levels of protection afforded by the legislation. Therefore the thresholds for SAC SPA and SSSI features are more stringent than those for other nature conservation sites.

Therefore we would generally conclude that the Installation is not causing significant pollution at these other sites if the PC is less than the relevant critical level or critical load, provided that the Applicant is using BAT to control emissions.

The following trigger thresholds have been applied for the assessment of these sites:

- If the process contribution (PC) is below 100% of the relevant critical level (CLe) or critical load (CLo) then the installation can be permitted with no further assessment.

In the initial modelling information provided by the Applicant predicted that at the local nature sites PCs not to exceed 100% of the critical levels or loads except at Fishwick Bottoms LNR where they predicted an exceedance of the daily critical level of 75 ug/m3 at a small part of the site. At some locations representative of this LNR the applicant predicts exceedence of the daily NOx critical level, with a highest predicted impact of 101.15 ug/m3. Full details are contained in Tables 4.4, 4.5 and 4.6 of the Application document Ref 39225, Final Report 18557i3 dated August 2018.

Following our concerns the applicant subsequently opted to reduce both the maximum hours of operation in any one day from 17 hours to 12 hours (between 6 am and 11.00pm) and the annual hours of operation from 2000 to 1500 and submitted a revised dispersion modelling report RedScar Power Plant Air Quality Impact Assessment Addendum, March 2019. The report has been reviewed by the Environment Agency's technical specialists for modelling, air quality, conservation and ecology technical services, who agreed with the assessment's conclusions, that the proposal does not damage the special features of the SSSI(s).

The results are presented in Table 3.1 of the report where the Applicant concludes that short-term nitrogen oxides emissions from the site at Fishwick Bottoms LNR are screened out as the process contribution (PC) is below 100% of the Critical Level (Cle).

We have checked the modelling data and our results with the Applicant's assessment. We agree with the Applicant's conclusion that it is unlikely there will be an exceedence of any annual critical levels or critical loads. We are satisfied that the Installation will not cause significant pollution at the sites.

6. Noise and vibration

The applicant submitted a noise risk assessment which demonstrates that noise emissions from the site will be low. The generator sets are to be housed within a bespoke acoustic containers. The containers are louvered enclosures which maintain the air flow needed by the equipment by way of directly mounted fans that draw air through the containers. The air intake and outflow is through a sound baffle which reduces the sound of the engines. The sound pressure level at 10m from all surfaces of the container is 65dB(A). Barriers such as vegetation/trees and buildings can further reduce the noise pressure levels. A 4m acoustic barrier will also be erected to reduce the noise further.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise noise and vibration and to prevent pollution from noise and vibration.

Decision checklist

Aspect considered	Decision
Receipt of application	
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.
Consultation	
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations: • Local Authority Environmental Protection Department – Preston City Council • Health and Safety Executive • National Grid • Public Health England and the relevant Director of Public Health – Lancashire • Natural England • Preston City Council – Park Services • Wildlife Trust for Lancashire, Manchester & North Merseyside The comments and our responses are summarised in the consultation section.
Operator	
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

Aspect considered	Decision
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. The following operational controls have been placed on the permit to protect Red Scar and Tun Brook Woods SSSI. We have restricted the maximum hours of operation in any one day to 12 hours (between 6 am and 11.00pm only) and restricted the annual hours of operation to 1500 hour, see condition 2.3.4. See key issues for more detailed information. We have consulted Natural England on our SSSI assessments, and taken their comments into account in the permitting decision.
Environmental risk assessment	
Environmental impact assessment	In determining the application we have considered the Environmental Statement.
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment all emissions may be categorised as environmentally insignificant see with the exception of NOx see key issues section.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent

Aspect considered	Decision
	appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
Operating techniques for emissions that do not screen out as insignificant	Emissions of NOx cannot be screened out as insignificant. We have assessed whether the proposed techniques are BAT. The proposed techniques/ emission levels for emissions that do not screen out as insignificant are in line with the techniques and benchmark levels contained in the technical guidance and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and ELVs deliver compliance with BAT-AELs. See key issues section
Operating techniques for emissions that screen out as insignificant	Emissions of dust and noise have been screened out as insignificant, and so we agree that the applicant's proposed techniques is are BAT for the installation. We consider that the emission limits included in the installation permit reflect the BAT for the sector.
Permit conditions	
Use of conditions other than those from the template	Based on the information in the application, we consider that we need to impose conditions other than those in our permit template. Condition 2.3.4 restrict hours of operation. See key issues.
Raw materials	We have specified limits and controls on the use of raw materials and fuels.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. We have imposed an improvement programme to ensure that: IC1 has been included to provide evidence to establish the methane emissions from the engines when operating at Enhanced Lean Burn (ELB) IC2 has been included to provide evidence to establish the emissions and relationship (if any) of Carbon Monoxide and formaldehyde from the engines when operating at Enhanced Lean Burn (ELB) and to undertake an assessment of the impacts of these emissions
Emission limits	We have decided that emission limits should be set for the parameters listed in the permit. The following substances have been identified as being emitted in significant quantities and ELVs and equivalent parameters or technical measures have been set for those substances • Oxides of Nitrogen (NOx and NO_2 expressed as NO_2). These limits have been imposed in line with the requirements of the Medium Combustion

Aspect considered	Decision
	Plant Directive MCPD for this type of plant. It is considered that the ELVs/ equivalent parameters or technical measures described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment secured.
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. These monitoring requirements have been imposed in order to meet the requirement of the Medium Combustion Plant Directive (MCPD) to monitor emissions from Medium Combustion Plant with a rated thermal input greater than 20MW on an annual basis. We made these decisions in accordance with DECC Developing BAT for combustion plants operating in the balancing market – Final Report June 2016 and Version 5.1 Protocol for IED Annex V 1500 Limited Hours Derogation July 2015 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. Reporting frequencies are based on annual requirement for monitoring and that the site operates at 1,500 hours per year. The result will allow us to compare air emissions and operating hours projected in the air quality modelling to ensure they reflect those achieved in practice are in line with Medium Combustion Plant Directive. We made these decisions in accordance with MCPD and DECC Developing BAT for combustion plants operating in the balancing market – Final Report June 2016
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions. The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

Aspect considered	Decision
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: "The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation." We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections. We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation

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

Responses from organisations listed in the consultation section

Response received from
Public Health England. Centre for Radiation, Chemical and Environmental Hazards (CRCE) on 28/11/18
Brief summary of issues raised
They note that the main emissions of potential concern are oxides of nitrogen and carbon monoxide as products of combustion and that the risk assessment notes these emissions are unlikely to approach or breach air quality standards. This is influenced by the restricted operation of the site to 2000 hours / year. Given the potential influence of operating hours on longer term air quality impacts, They have no significant concerns regarding the risk to the health of the local population from the installation. They request that we ensure that the proposed operating cycle remains in place. In addition that the permit holder is required to take all appropriate measures to prevent or control pollution, in accordance with the relevant sector guidance and industry best practice.
Summary of actions taken or show how this has been covered
We agree that the Applicant's predictions for human health can be used for permit determination. The conclusion is that there will be no significant impact on human health caused by the operation of this installation. This prediction is based upon a highly conservative assessment of emissions of oxides of nitrogen under certain meteorological conditions not breaching Environmental Quality Standards at locations that might be frequented by humans during the life of the Installation. We also agree with the Applicant's conclusion that it is not likely there will be an exceedences of any annual critical levels or critical loads. We have assessed operating techniques and are satisfied the measures are BAT for this type of combustion plant.

Response received from
Preston City Council - Environmental Protection on 4/12/2018
Brief summary of issues raised
Confirmed that they were not aware of any noise or other amenity issues at this site. The applicant has also submitted a planning action this is awaiting planning approval and a discharge of conditions, the submission of a ground gas monitoring report is required to establish whether any gas protection measures are needed. There is no enforcement action either pending or that has been taken against this site.
Summary of actions taken or show how this has been covered
No action

Response received from
Lancashire Wildlife trust dated 15/02/2019
Brief summary of issues raised
Currently we have no major concerns about the impact of the slight increase in atmospheric pollution impact on Boilton Wood LNR (part of the Redscar & Tunbrook Woods SSSI) they added that it is ultimately

Natural England's decision, and it (we hope) still has access to more expertise on air quality impacts on ancient woodland communities that do we.
Summary of actions taken or show how this has been covered
Following consultation response the applicant has reduced the hours of operation of the plant and submitted a revised Air Quality Assessment which demonstrated that the Installation is not causing significant pollution as the PC is less than the relevant critical level or critical load, provided that the Applicant is using BAT to control emissions.

Response received from
Natural England dated 01/03/2019
Brief summary of issues raised
They agree that the permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest because of conditions. They note that even though the process contribution could potentially exceed the critical level thresholds, due to the conservative approach taken by the operator, the small PC in relation to the background and the type and distribution of protected features they are satisfied the emissions from the proposed plant are unlikely to result in a significant impact on the features of the protected site. They welcome the inclusion of IC for a botanical survey to be undertaken to establish if there are plants that are sensitive to NOX and request a copy of the report be provided on completion.
Summary of actions taken or show how this has been covered
Following this consultation response the applicant has reduced the hours of operation of the plant and submitted a revised Air Quality Assessment which demonstrates that the Installation will not cause significant pollution as the PC is less than the relevant critical level or critical load. The inclusion of an IC is no longer necessary.

The Health and Safety Executive, Food Standards Agency and National Grid were also consulted. However, no responses were received from these Consultees.