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West Burton C (Gas Fired Generating Station)

The West Burton C (Generating Station) Order

Land to the north of the West Burton B Power Station, Nottinghamshire

Statutory Nuisance Statement

Applicant: EDF Energy (Thermal Generation) Limited
Date: April 2019

DOCUMENT HISTORY

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GLOSSARY

ABBREVIATION	DESCRIPTION
APFP	The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.
Applicant	EDF Energy (Thermal Generation) Limited.
BAT	Best Available Techniques – available techniques which are the best for preventing or minimising emissions and impacts on the environment. BAT is required for operations involving the installation of a facility that carries out industrial processes. Techniques can include both the technology used and the way an installation is designed, built, maintained, operated and decommissioned.
BDC	Bassetlaw District Council – the local planning authority with jurisdiction over the area within which the West Burton Power Station Site and Proposed Development Site (the Site) are situated.
CCGT	Combined Cycle Gas Turbine – a CCGT is a combustion plant where a gas turbine is used to generate electricity and the waste heat from the flue-gas of the gas turbine is converted to useful energy in a heat recovery steam generator (HRSG), where it is used to generate steam. The steam then expands in a steam turbine to produce additional electricity.
CCS	The Considerate Constructors Scheme – a non-profit making, independent organisation founded in 1997 by the construction industry to improve its image. The scheme promotes good construction site practice and provides codes of considerate practice which commit the users of registered sites to be considerate and good neighbours, respectful; environmentally conscious, responsible and accountable.
CEMP	Construction Environmental Management Plan – a plan to outline how a construction project will avoid, minimise or mitigate effects on the environment and surrounding area.
CWTP	Construction Workers' Travel Plan – a plan managing and promoting

ABBREVIATION	DESCRIPTION
	how construction workers travel to a particular area or organisation. It aims at promoting greener, cleaner travel choices and reducing reliance on the private car.
DCO	Development Consent Order – made by the relevant Secretary of State pursuant to the Planning Act 2008 to authorise a Nationally Significant Infrastructure Project. A DCO can incorporate or remove the need for a range of consents which would otherwise be required for a development. A DCO can also include rights of compulsory acquisition.
Emission	The substances or mass of a substance emitted into the atmosphere.
EIA	Environmental Impact Assessment – a term used for the statutory process that assesses environmental consequences (positive or negative) of a project prior to the decision to move forward with the proposed development. The EIA process concludes whether likely significant effects on the environment are expected.
EPA	Environmental Protection Act 1990 – an Act of the Parliament of the United Kingdom that defines, within England, Wales and Scotland, the fundamental structure and authority for waste management and control of emissions into the environment.
ES	Environmental Statement – a report in which the process and results of an Environment Impact Assessment are documented.
FBA	Furnace Bottom Ash – the “coarse” ash fraction produced by coal fired power stations when pulverised fuel is burned at high temperatures and pressures.
HRSG	Heat Recovery Steam Generator – an energy recovery heat exchanger that recovers heat from a hot gas stream. It produces steam that can be used in a process (cogeneration) or used to drive a steam turbine (combined cycle).
IED	Industrial Emissions Directive, EU Directive 2010/75/EU – European Union Directive committing member states to control and reduce the impact of industrial emissions on the environment.
ISO	International Organisation for Standardisation – an international standard setting body composed of representatives for various national standards organisations.
LWS	Local Wildlife Site – an area important for the conservation of wildlife, these are non-statutory sites of nature conservation value that have been designated 'locally'. These sites are referred to differently between counties with common terms including site of importance for nature conservation, county wildlife site, site of biological importance, site of local importance and sites of metropolitan importance.
MW	Megawatt – unit of power
NCC	Nottinghamshire County Council – the county council with jurisdiction over the area within which the West Burton Power Station Site and

ABBREVIATION	DESCRIPTION
	Proposed Development Site (the Site) are situated.
NSIP	Nationally Significant Infrastructure Projects – defined by the Planning Act 2008 and covers projects relating to energy (including generating stations, electric lines and pipelines); transport (including trunk roads and motorways, airports, harbour facilities, railways and rail freight interchanges); water (dams and reservoirs, and the transfer of water resources); waste water treatment plants and hazardous waste facilities. These projects are only defined as nationally significant if they satisfy a statutory threshold in terms of their scale or effect.
OCGT	Open Cycle Gas Turbine – a combustion turbine plant fired by gas or liquid fuel to turn a generator rotor that produces electricity.
PFA	Pulverised Fuel Ash – a by-product of pulverised fuel fired power stations.
SWMP	Site Waste Management Plan – a plan setting out how resources will be managed and waste controlled at all stages during a construction project.
WBA	West Burton A - the existing coal fired power station within the West Burton Power Station Site, owned and operated by the Applicant.
WBB	West Burton B - the existing gas-fired power station, using Combined Cycle Gas Turbine (CCGT) technology, owned and operated by the Applicant.
WLDC	West Lindsey District Council – the adjoining local planning authority to Bassetlaw District Council in which the West Burton Power Station Site and Proposed Development Site (the Site) are situated.

Executive Summary

This Statutory Nuisance Statement has been written to comply with Regulation 5(2)(f) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (APFP Regulations), which states that any application for development consent should be accompanied by a statement setting out whether the Proposed Development (which for this project is a gas fired electricity generating station in Nottinghamshire), could cause a statutory nuisance pursuant to Section 79(1) of the Environmental Protection Act 1990 (EPA). If such a nuisance could occur, the statement must set out how the Applicant proposes to mitigate or limit the effects. An overview of the proposal and the Site location is included in **Section 1**.

Section 2 identifies the legislative framework pertinent to statutory nuisance.

Section 3 outlines the potentially significant statutory nuisance impacts arising from the Proposed Development and any mitigation measures proposed to reduce statutory nuisance impacts, as outlined in the Environmental Statement (**Application Document Ref. No. 5.2**).

Section 4 outlines the potential negligible and minor effects which may arise from the Proposed Development and any mitigation measures proposed for the control of these effects.

Section 5 concludes that only noise has been assessed as having the potential to lead to statutory nuisance effects that may be significant, in the absence of mitigation. However, following the embedded and additional mitigation measures outlined in **Section 3**, no significant noise effects are anticipated. The operation of the generating station is to be regulated by the Environment Agency through an Environmental Permit which will be used to control emissions from the generating station so as to prevent or minimise off-site nuisance impacts through the use of Best Available Techniques (BAT).

1. Introduction

1.1 Overview

1.1.1 This Statutory Nuisance Statement has been prepared on behalf of EDF Energy (Thermal Generation) Limited (the Applicant). It forms part of the application (the Application) for a Development Consent Order (a DCO), that has been submitted to the Secretary of State pursuant to the Planning Act 2008 (2008 Act) (Ref 1).

1.1.2 The Applicant is seeking development consent for the construction, operation (including maintenance) and decommissioning of a new gas fired electricity generating station up to 299 megawatts (MW) of gross electrical output including electrical, gas and utility connections, a construction laydown area, and other associated works (the Proposed Development) on land to the north of the existing West Burton B (WBB) Power Station, in Nottinghamshire. The Proposed Development is described in **Chapter 4**: The Proposed Development (ES Volume I) (**Application Document Ref. 5.2**).

1.1.3 The Proposed Development falls within the definition of a *'Nationally Significant Infrastructure Project'* (NSIP) under Section 14(1)(a) and Sections 15(1) and (2) of the 2008 Act, as it is an onshore generating station in England that would have a generating capacity greater than 50MW electrical output (50MWe). As such, a DCO is required to authorise the Proposed Development in accordance with Section 31 of the 2008 Act.

1.1.4 The DCO, if made by the Secretary of State, would be known as the 'The West Burton C (Gas Fired Generating Station) Order' (the 'Order').

1.2 The Applicant

1.2.1 As detailed above, the Applicant is EDF Energy (Thermal Generation) Limited which owns and operates the two existing power stations at the West Burton Power Station site; West Burton A (WBA) and West Burton B (WBB), as well as the nearby Cottam Power Station.

1.2.2 EDF Energy (Thermal Generation) Limited is part of EDF Energy which is the UK's largest producer of low-carbon electricity, the biggest supplier of electricity by volume in Great Britain and the largest supplier to British business.

1.3 The Site

1.3.1 The Proposed Development site (the Site) comprises land within the boundary of the existing West Burton Power Station Site near Gainsborough, Nottinghamshire. The land is within the ownership of the Applicant. The Site is centred on national grid reference 480275, 386241 (the middle of the Proposed Power Plant Site defined in **Chapter 3**: Description of the Site and its Surroundings (ES Volume I), (**Application Document Ref. 5.2**)).

1.3.2 The West Burton Power Station site is located approximately 3.5km to the south-west of Gainsborough and 1km to the north-east of Sturton-le-Steeple and lies close to the junction of the A631/A620, being accessed by a C-class road (the C2), which joins the A620 at Bole Corner. The nearest settlement is the village of Bole located approximately 1km to the north-west of the Proposed Power Plant Site.

1.3.3 The entire Site lies within the administrative boundary of Bassetlaw District Council (BDC), close to the border with West Lindsey District Council (WLDC) (defined by the River Trent to the east).

1.3.4 The West Burton Power Station site covers in excess of 200ha. WBA Power Station is a coal fired power station, which was commissioned in 1968. It comprises four coal fired units with two chimney stacks (each 198m high) and eight natural draught cooling towers (each 112m high), with cooling water sourced from the River Trent. It supplies up to 2,000MW of electricity to the National Grid.

1.3.5 Adjacent to the east of WBA Power Station is the WBB Power Station, a combined cycle gas turbine (CCGT) Power Station, which was commissioned in 2013. It comprises three units, each having a gas turbine, a heat recovery steam generator (HRSG) and an associated steam turbine, with a combined output capacity of 1,332MW. The WBB Power Station connects to the National Grid Transmission System approximately 0.7km to the south of the WBB Power Station site via the existing WBA 400 kilovolt (kV) substation, located within the confines of the overall West Burton Power Station site. The WBB Power Station is also served by an underground gas pipeline connection entering the WBB Power Station site at its north-eastern boundary.

1.4 The Proposed Development

1.4.1 The Proposed Development would comprise a gas fired generating station with gross electrical output capacity of up to 299MW with associated buildings, structures and plant defined in the draft DCO as Work No. 1 and shown on the Works Plans (**Application Document Ref. 3.2**) as **Work No. 1: Sheet 1 of 10** including:

- up to five open cycle gas turbine (OCGT) units and associated generators, potentially housed within building(s), with stack(s), transformer(s), air inlet filter(s) and exhaust gas diffuser(s);
- associated switchgear and ancillary equipment; and
- auxiliary closed loop cooling equipment/systems.

1.4.2 In an OCGT, natural gas fuel is mixed and combusted with air from the compressor section of the gas turbine and the hot gases are expanded through the power turbine section of the turbine, which drives a generator to produce electricity for export to the National Grid electricity transmission system.

1.4.3 Peaking plants, such as that proposed, are used to rapidly supply electricity to the network when required by the National Grid. These plants can be fired up at short notice to help cope with periods of high demand or low electricity supply nationally (for example when the wind is not blowing to enable sufficient output to be achieved from wind farms in the UK), or when required to provide ancillary services to support the National Grid. This is expected to be weighted towards the winter period, usually for a few hours at a time. However, as the operation of the plant is driven by the dynamics of the energy market, the plant could run for longer periods, at any time of day, up to the maximum allowed under its Environmental Permit, which is anticipated to be 1,500 hours per year on a rolling five year average .

1.4.4 The Proposed Development is described in further detail in the Environmental Statement (ES) (Volume I) (**Application Document Ref. 5.2**, **Chapter 4**: The Proposed Development).

1.5 The Purpose and Structure of this Document

1.5.1 The purpose of this document is to comply with Regulation 5(2)(f) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (APFP Regulations) (Ref 2), which states that any application for development consent should be accompanied by a statement setting out whether the development proposal could cause a statutory nuisance pursuant to Section 79(1) of the Environmental Protection Act 1990 (EPA) (Ref 3). If such a nuisance could occur, the statement must set out how the applicant proposes to mitigate or limit the effects.

1.5.2 Paragraph 4.14.1 of the 'Overarching National Policy Statement for Energy EN-1' (Ref 4) states:

"*Section 158 of the Planning Act 2008 confers statutory authority for carrying out development or doing anything else authorised by a DCO. Such authority is conferred only for the purpose of providing a defence in any civil or criminal proceedings for nuisance. This would include defence for proceedings for nuisance under Part III of the EPA (statutory nuisance) (Ref 3) but only to the extent that the nuisance is the inevitable consequence of what has been authorised. The defence does not extinguish the local authority's duties under Part III of the EPA to inspect its area and take reasonable steps to investigate complaints of statutory nuisance and to serve abatement notice where satisfied to its existence, likely occurrence or recurrence. The defence is not intended to extend to proceedings where the matter is 'prejudicial to health' and not a nuisance*."

1.5.3 Paragraph 4.14.2 goes on to state that it is very important that at the application stage, the Secretary of State considers sources of nuisance under Section 79(1) of the EPA and how these may be mitigated or limited, so that appropriate 'requirements' can be included in any DCO that is granted.

1.5.4 Whilst it is not expected that the construction, operation (including maintenance) and decommissioning of the Proposed Development would cause a statutory nuisance, Article 9 of the draft DCO accompanying the Application (**Application Document Ref. 2.1**) contains a provision that would provide a defence to proceedings in respect of statutory nuisance (in respect of sub-paragraph (g) of Section 79(1) of the EPA (noise emitted from premises so as to be prejudicial to health or a nuisance), subject to certain criteria (Ref 3).

1.5.5 This Statement first describes the legislative context for the identification of matters which constitute statutory nuisance and the methodology for the assessment of these. This is followed by a summary of the assessment of the statutory nuisances, using information from the ES (**Application Document Ref. 5.2**), including any relevant mitigation measures and residual effects, whether embedded or additional mitigation.

2. Identification and Assessment of Statutory Nuisance

2.1 Legislative Framework

2.1.1 Section 79(1) of the EPA identifies the matters which are considered to be statutory nuisance as follows:

(a) any premises in such a state as to be prejudicial to health or a nuisance;

(b) smoke emitted from premises so as to be prejudicial to health or a nuisance;

(c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;

(d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;

(e) any accumulation or deposit which is prejudicial to health or a nuisance;

(f) any animal kept in such a place or manner as to be prejudicial to health or a nuisance;

(fa) any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance;

(fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance;

(g) noise emitted from premises so as to be prejudicial to health or a nuisance;

(ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street or in Scotland, road; and

(h) any other matter declared by any enactment to be statutory nuisance.

2.2 Assessment of Significance

2.2.1 The ES (**Application Document Ref. 5.2**) addresses the likelihood of significant effects arising that could constitute a statutory nuisance, as identified in Section 79(1) of the EPA.

2.2.2 **Chapter 4:** The Proposed Development (ES Volume I) (**Application Document Ref. 5.2**) and the Framework Construction Environmental Management Plan (CEMP) (**Application Document Ref. 7.3**) describe impact avoidance measures inherent to the proposed design and methods of construction and operation, which address the potential statutory nuisances defined in **Section 2.1**.

2.2.3 In ES Volume I, **Chapter 6:** Air Quality, **Chapter 7**: Traffic and Transport and **Chapter 8:** Noise and Vibration and their associated appendices, where relevant,

provide detailed assessments of these potential statutory nuisances and identify mitigation measures where necessary.

2.2.4 The ES provides an assessment of the potential effects on receptors as negligible, minor, moderate or major. Moderate and major effects are considered to be significant for the purposes of the EIA.

2.2.5 The only matter addressed by the EPA which has been assessed as potentially being significant for the Proposed Development is noise. However, it is demonstrated in **Section 3** of this document that the Proposed Development would have no significant noise nuisance effects following the implementation of the identified embedded and additional mitigation measures.

2.2.6 Other potential nuisance aspects have been considered in **Section 4** and through embedded mitigation, no statutory nuisance effects are considered likely to occur.

3. Proposed Embedded and Additional Mitigation Measures – Potentially Significant Effects

3.1 Noise

3.1.1 Paragraph 1, Section 79(1) of the EPA defines noise nuisance as:

"*noise emitted from premises so as to be prejudicial to health or a nuisance"* (sub-paragraph g); and

"noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street" (sub-paragraph ga).

3.1.2 The potential impacts and mitigation for noise nuisance have been discussed as part of the noise impact assessment presented in **Chapter 8:** Noise and Vibration (ES Volume I) (**Application Document Ref. No. 5.2**).

3.1.3 The ES concludes that during the construction of the Proposed Development, in the absence of mitigation, there would be potential for:

- up to moderate adverse (significant) effects on the NSR during night-time working, if the same intensity of working as for the daytime is assumed; and
- up to major adverse (significant) effects at some NSR during the operation of the Proposed Development, depending on the supplier of the gas turbine selected.

Construction Noise Impact Avoidance Measures and Additional Mitigation

3.1.4 Impact avoidance measures to be included in a CEMP shall include, but not be limited to application of the following best practicable means (BPM) as far as reasonably practicable:

- abiding by construction noise limits at locations to be agreed with BDC;
- ensuring that all appropriate processes are in place to minimise noise before works begin and ensuring that BPM are being applied throughout the construction programme;
- ensuring that modern mobile plant is used, complying with the applicable UK noise emission requirements;
- selection of inherently quiet plant where possible;
- hydraulic techniques for breaking of concrete to be used in preference to percussive techniques, where reasonably practical;
- if piling is required, use of lower noise piling (such as rotary bored or hydraulic jacking) rather than driven piling techniques, where reasonably practicable;
- off-site pre-fabrication, where reasonably practicable;

- all plant and equipment being used for the works to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use;
- all contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2), which should form a prerequisite of their appointment;
- loading and unloading of vehicles, dismantling of site equipment such as scaffolding or moving equipment or materials around the Site to be conducted in such a manner as to minimise noise generation as far as reasonably practicable;
- all vehicles used on-Site shall incorporate broadband reversing warning devices as opposed to the typical tonal reversing alarms to minimise noise disturbance where reasonably practicable
- appropriate routing of construction traffic on public roads and along access tracks (see Chapter 7: Traffic and Transport (ES Volume I) (**Application Document Ref No. 5.2**));
- provision of information to BDC and local residents to advise of potential noisy works that are due to take place; and
- monitoring of noise complaints , and reporting to the Applicant for immediate investigation and action.

3.1.5 The ES (**Application Document Ref No. 5.2**) concludes that through the implementation of the best practice measures to control construction noise through the use of a CEMP (a Framework CEMP is included as **Application Document Ref No. 7.3**), noise would be managed and mitigated to reduce the effect to negligible adverse (daytime) to minor adverse (evenings and weekends) which would not be significant. Additional mitigation measures would be put in place to control activities at night-time so as not to exceed the threshold levels / relevant noise limit at locations to be agreed with BDC; this is proposed to be secured through a Requirement of the draft DCO.

Operational Noise Mitigation

3.1.6 The operational assessment has assumed that potential sound of a tonal, impulsive or intermittent nature (according to BS4142: 2014) will be designed out of the Proposed Development during the detailed design phase through the selection of appropriate plant, building cladding, louvres and silencers/attenuators as necessary.

3.1.7 In light of the required attenuation to achieve the defined noise criteria, further appraisal by plant engineers has been undertaken. This has evaluated the main potential noise sources associated with the operational plant and identified potential design and embedded mitigation options that, in combination, could

reduce predicted sound levels at nearby noise sensitive receptors (NSRs) to below the Lowest Observable Adverse Effect Level (LOAEL) criteria.

3.1.8 The potential mitigation measures include:

- reducing the breakout noise from the GTs, generator and accessories through use of enhanced enclosures, or potentially containing them within a building;
- reducing the air inlet noise emissions by addition of further in-line attenuation;
- reducing the stack outlet noise emissions by addition of silencers or sound proofing panels;
- reducing fin fan cooler noise emissions by screening, re-sizing, fitting low noise fans or attenuation;
- screening or enclosing the transformers or other equipment;
- use of screening or bunding to shield receptors from noise sources; or
- orientation of plant within the Site to provide screening of low level noise sources by other buildings and structures, or orientating fans and the air inlet away from sensitive receptors.

3.1.9 An engineering appraisal was undertaken to assess the reduction in sound levels that could be achieved by application of the mitigation measures listed above. The appraisal indicated that the use of a combination of such mitigation measures could result in a very low magnitude of impact at each of the NSR. This would result in negligible (not significant) noise effects at NSR.

3.1.10 As the Proposed Development design progresses to the detailed design stage, the existing noise model will be refined and additional acoustic assessment will be undertaken in consultation with the design engineers, to determine the most appropriate mitigation options in accordance with BAT. The findings of the further assessment will inform the design to ensure that rating levels meet with a target of no greater than +5 dB above the representative background sound level at each NSR, resulting in no more than a low magnitude of impact and no greater than a minor adverse effect which would not be significant.

3.1.11 Operational noise would be controlled via a Requirement of the draft DCO (**Application Document ref. 2.1**), requiring noise to be controlled in accordance with the use of BAT so as to not give rise to off-site nuisance impacts. On this basis, it is considered that environmental noise from the Proposed Development during operation would be adequately controlled so as to not give rise to nuisance impacts at any identified sensitive receptors.

Traffic

3.1.12 The volume of traffic during the construction phase of the Proposed Development is assessed to be not significant based on the predicted peak traffic flows to the Site during construction and the current traffic levels on the road network and the

condition of that network. Similarly the air quality and noise effects of the construction traffic are also assessed to be not significant.

3.1.13 Nevertheless, whilst assessments have demonstrated no significant effects from construction traffic movements, the following best practice mitigation measures would be implemented to minimise effects:

- Core construction working hours would be Monday – Friday 07:00 to 19:00 and Saturday 08:00 to 18:00. Should on-site construction works need to be conducted outside of these core construction working hours they would comply with any restrictions agreed with the local planning authority through the DCO process, in particular regarding control of noise and traffic.
- A Travel Plan – Construction Staff would be applied, aimed at identifying measures and establishing procedures to encourage construction workers to adopt modes of transport which reduce reliance on single occupancy private car use. It would align with the Framework Construction Workers' Travel Plan that is included in the Application (**Application Document Ref. 7.7**).
- The contractor would be required to prepare a Construction Traffic and Routing Management Plan, which would identify a number of measures to control the routing and impact that HGVs would have on the local road network during construction. It is proposed that all construction HGVs would be required to arrive and depart the West Burton Power Station site entrance to the north, avoiding North Leverton with Habblesthorpe. A programme of monitoring would be recommended to assess the effectiveness of the measures proposed. It would align with the Framework Construction Traffic Management Plan that is included in the application (**Application Document Ref. 7.6**).

3.1.14 During operation of the Proposed Development, the potential noise from road traffic movements is determined to have no significant effects on the identified receptors. Therefore, noise from the Proposed Development is unlikely to represent a statutory nuisance.

4. Design and Impact Avoidance Measures – Negligible/Minor Impacts

4.1 Smoke, Fumes and Gases

4.1.1 Paragraph 1, Section 79(1) of the EPA states:

"*smoke emitted from premises so as to be prejudicial to health or a nuisance*" (sub-paragraph b).

4.1.2 No smoke is expected to be generated from the Proposed Development as a part of its normal operation.

4.1.3 Paragraph 1, Section 79(1) of the EPA states:

"*fumes or gases emitted from premises so as to be prejudicial to health or a nuisance*" (sub-paragraph c).

4.1.4 The Proposed Development will be designed and operated to meet the requirements of the Industrial Emissions Directive (IED) (Ref 5) and, as appropriate, the revised BAT conclusions from the Large Combustion Plant BAT Reference document (Ref 6), and its operations will be regulated by the Environment Agency under an Environmental Permit. It would be operated and maintained by a dedicated operations and maintenance team with an established planned preventative maintenance programme.

4.1.5 The proposed high efficiency gas turbines for the Proposed Development are able to comply with the current IED requirements (Ref 5) without the need for secondary abatement; primary combustion control measures and burner designs mean that emissions of nitrogen oxides and carbon monoxide can meet the IED emission limits, while emissions of sulphur dioxide and particulates are expected to be negligible based on the use of natural gas fuel. The process is controlled through an automated process control system in accordance with BAT (Ref 6).

4.1.6 The effects from operation of the Proposed Development have been identified as not significant through the selected minimum stack heights for the gas turbine technologies. Therefore, no additional mitigation has been identified as necessary for the operational phase of the Proposed Development.

4.1.7 Monitoring strategies for the operational plant would be enshrined within the Environmental Permit and are likely to require continuous monitoring of key pollutant emissions from each stack, with annual reporting of results to the Environment Agency and annual independent validation of the monitoring results. Sampling and analysis of exhaust emissions would be carried out to appropriate standards (e.g. ISO, national, or international standards). Combined with the thermal buoyancy of the warm gas, the flue gases would rise before becoming dispersed.

4.1.8 The fuel to be used in the Proposed Development is natural gas. The gas would be received at a gas receiving area to treat and depressurise it before being used in the Proposed Development. No emissions of natural gas are expected to occur from the gas receiving area. Likewise, the Proposed Development would combust the gas so that emissions of unburnt gas would not occur during normal plant operation. Therefore, no fume or gases which can cause significant impact would arise from the Proposed Development

4.1.9 Therefore, the assessment has concluded that no fume or gases which can cause significant impacts would arise from the Proposed Development.

Dust, Steam, Smells or other Effluvia

4.1.10 Paragraph 1, Section 79(1) of the EPA states:

"*any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance***"** (sub-paragraph d).

4.1.11 The operation of the Proposed Development in accordance with the IED and Environmental Permit, would minimise the potential for statutory nuisance from atmospheric emissions. The plant is not expected to give rise to dust or odour emissions during operation as natural gas fuel does not generate dust during combustion and also because there is not envisaged to be any loss or release of unburned gas during normal operation. No secondary abatement is required for the control of emissions to air and there is no ammonia storage or emission arising from such secondary abatement.

4.1.12 There is the potential for dust generation during earthworks and construction activities. However, the dust generated from construction is predicted to have minor or negligible effects as emissions would be controlled in accordance with industry best practice. The control of dust emissions during construction and application of appropriate mitigation measures would be undertaken through the proposed CEMP. Additionally, the selected contractor would be encouraged to be a member of the 'Considerate Constructors Scheme' which is an initiative open to all contractors undertaking building work, to assist in reducing pollution and nuisance from the Proposed Development.

4.1.13 The impacts from waste generated from the Proposed Development are considered to be very small, as minimal waste arisings are expected during construction or operation. A Site Waste Management Plan (SWMP) would be implemented by the contractor to reduce, re-use and recycle construction waste as far as reasonably practicable (a Framework SWMP is provided within the Framework CEMP (**Application Document Ref. 7.3**, Appendix A)). Good practice waste management procedures would also minimise the risk of adverse effects on human or ecological receptors from waste storage, transfer or disposal.

4.1.14 During plant operation, cooling is undertaken through a closed loop cooling system and fin fan cooler arrangement. These fans are external to any structure and use

air as the cooling medium. A small amount of water is retained in the closed loop system with top up periodically required; there is no steam cycle installed and therefore no need for large volumes of cooling water to be abstracted from or returned to the river.

4.1.15 Therefore, the assessment has concluded that no significant emissions of dust, steam, smell or other effluvia would arise from the Proposed Development.

Accumulations and Deposits

4.1.16 Paragraph 1, Section 79(1) of the EPA states:

"*any accumulation or deposit which is prejudicial to health or a nuisance*" (sub-paragraph e).

4.1.17 The volumes of waste generated from the Proposed Development are expected to be very small. While some ground clearance and levelling works would be required, it is not envisaged that large volumes of PFA or waste spoil or surplus materials would be generated requiring off-site treatment or disposal. During construction, the SWMP would be implemented by the contractor to reduce, re-use and recycle construction waste as far as reasonably practicable.

4.1.18 Waste arisings during plant operation would be minor, as there is no ash or by-product formation from the combustion of natural gas fuel. Good practice waste management procedures during operation would also minimise the risk of adverse effects on human or ecological receptors from the storage, transfer or disposal of waste.

4.1.19 No accumulation or deposit is expected from the Proposed Development.

Animals and Insects

4.1.20 Paragraph 1, Section 79(1) of the EPA states:

"*any animal kept in such a place or manner as to be prejudicial to health or a nuisance*" (sub-paragraph f).

4.1.21 No animals would be kept at the Proposed Development.

4.1.22 Paragraph 1, Section 79(1) of the EPA states:

"*any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance*" (sub-paragraph fa).

4.1.23 Due to the nature of the process, no insects are expected to emanate from the Proposed Development or be attracted to it.

Artificial Light

4.1.24 Paragraph 1, Section 79(1) of the EPA states:

"*artificial light emitted from premises so as to be prejudicial to health or a nuisance*" (sub-paragraph fb).

4.1.25 Artificial lighting would be required during construction and operation of the Proposed Development, for safety and security purposes. However, good practice methods and design measures, including directional lighting (directed downwards to minimise light spill), would be employed to minimise off-site lighting effects and minimise light spill from the Site, as far as reasonably practicable.

4.1.26 Construction lighting would be mitigated by measures outlined in the Lighting Strategy (**Application Document Ref. 7.4**) and Framework CEMP (**Application Document Ref. 7.3**).

4.1.27 Operational lighting would be in accordance with the Lighting Strategy (**Application Document Ref. 7.4**). As the Proposed Power Plant site will only be intermittently in operation and remotely operated, the overarching philosophy underpinning the design of the lighting for the development is to have a reduced light site. Lighting provided would be for general pedestrian movement, safety and security purposes only. Any lighting that may be required for maintenance purposes will be produced by temporary lighting sets specific to the required task. Lighting shall be further reduced to only critical lighting from 23.00 to 05.00 to reduce the impact of impact of obtrusive lighting on the local environment. 23:00 as per the recommendation from the Institute of Lighting Professionals Guidance Notes for the Reduction of Obtrusive Lights and 05:00 as per the usual recommendation from local authorities.

4.1.28 A Requirement would be imposed on the draft DCO (**Application Document Ref. 2.1**) to control external lighting.

4.1.29 Due to the screening effect of intervening vegetation and the restrictions placed on lighting by the Lighting Strategy, it is anticipated that overall, the effects of night-time lighting at sensitive receptors resulting from the Proposed Development will not increase significantly above current baseline levels from WBA and WBB.

Other Matters

4.1.30 Paragraph 1, Section 79(1) of the EPA states:

"*any other matter declared by any enactment to be statutory nuisance*" (sub-paragraph h)

4.1.31 No other matters are considered to be a potential statutory nuisance associated with the construction and operation of the Proposed Development.

5. Conclusion

5.1 Potential for Nuisance

5.1.1 This Statement identified the matters set out in Section 79(1) of the EPA in respect of statutory nuisance and considers whether the Proposed Development could cause a statutory nuisance.

5.1.2 The only matter addressed by the EPA which has been assessed as potentially being significant for the Proposed Development is noise. However, it is demonstrated in **Section 3** of this document that the Proposed Development would have no significant noise effects following the implementation of the identified design and impact avoidance and additional mitigation measures.

5.1.3 Other potential nuisance aspects have been considered in **Section 4** and through embedded design and impact avoidance measures, no statutory nuisance effects are considered likely to occur.

5.1.4 The operation of the Proposed Development would be regulated by the Environment Agency through an Environmental Permit.

5.2 Development Consent Order

5.2.1 Notwithstanding the above conclusions, the draft DCO (**Application Document Ref. 2.1**) that accompanies the application contains a provision in Article 9 that would provide a defence, subject to certain criteria, to proceedings in respect of statutory nuisance falling within sub-paragraph (g) of Section 79(1) of the EPA (noise emitted from premises so as to be prejudicial to health or a nuisance).

6. References

Ref 1 HM Government (2008) *The Planning Act 2008*. Available from: http://www.legislation.gov.uk/ukpga/2008/29/pdfs/ukpga_20080029_en.pdf

Ref 2 HMSO (2009) *Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.* Available from*:* https://www.legislation.gov.uk/uksi/2009/2264/pdfs/uksi_20092264_en.pdf

Ref 3 HM Government (1990) *Environmental Protection Act 1990*. Available from: https://www.legislation.gov.uk/ukpga/1990/43/pdfs/ukpga_19900043_en.pdf

Ref 4 Department of Energy and Climate Change (2011), Overarching *National Policy Statement for Energy (EN-1)*. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf

Ref 5 European Commission (2010) *European Directive on Industrial Emissions 2010/75/EU:* Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0075

Ref 6 European Union (2017) *Best Available Techniques (BAT) Reference Document for Large Combustion Plants LCP*, June 2017. Available from: http://eippcb.jrc.ec.europa.eu/reference/BREF/LCP/JRC107769_LCP_bref2017.pdfhttp://eippcb.jrc.ec.europa.eu/reference/BREF/LCP/JRC107769_LCP_bref2017.pdf