Wheelabrator Kemsley (K3 Generating Station) and Wheelabrator Kemsley North (WKN) Waste to Energy facility Development Consent Order

15 Glossary of Terms and Abbreviations

µm: Micrometre

unit of length equaling1×10⁻⁶ metre

µg/m³:

The concentration of an air pollutant is given in micrograms (one-millionth of a gram) per cubic meter air.

AADT: Annual Average Daily Traffic

APCR: Air Pollution Control Residue

Fly ash present in air from the combustion of waste.

AOD: Above Ordnance Datum

Above mean sea level.

ADMS: Atmospheric Dispersion Modelling

System

Applicant:

Wheelabrator Technologies Inc. including any holdings or subsidiaries

AQAP: Air Quality Action Plan

AQMA: Air Quality Management Area

Aquifer

A deposit or rock, such as sandstone, containing water that can be used to supply

ATC: Automatic Traffic Counter

BAP: Biodiversity Action Plan

An internationally recognized program addressing threatened species and habitats and is designed to protect and restore biological systems.

BAT: Best available techniques

Carbon Intensity:

The amount of carbon (in terms of weight) emitted per unit of energy consumed.

CCS: Carbon Capture and Storage

CEMP: Construction Environmental

Management Plan

CERC: Cambridge Environmental Research

Consultants

CH₄: Methane

CHP: Combined Heat and Power

CIEEM: Chartered Institute of Environment and

Ecology Management

CO₂e: CO₂ Equivalent

A measurement for the amount of global warming a greenhouse gas may cause in terms of CO₂.

Controlled Waters

Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three-mile limit of territorial waters.

Critical Levels

A quantitative estimate for exposure to one or more airborne pollutants in gaseous form, below which significant harmful effects on sensitive habitats do not occur, according to present knowledge.

Critical Loads

A quantitative estimate of exposure to deposition of one or more pollutants, below which significant harmful effects on sensitive habitats do not occur, according to present knowledge.

CTMP: Construction Traffic Management Plan

Cumulative effects

Effects that may arise from a combination of the project's effects with those of other existing or planned developments in the area.

DBA: Desk-based Assessment

dB: Decibel

A unit of level derived from the logarithm of the ratio between the value of a quantity and a reference value. It is used to describe the level of many different quantities. The threshold of normal hearing is in the region of 0 dB and 140 dB is the threshold of pain. A change of 1 dB is only perceptible under controlled conditions. dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).

DCO boundary

The area subject to the DCO application and demarked on the application plans as a red line

Decommissioning

Deactivating and demolition.





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DEMP: Decommissioning Environmental Management Plan

DCO

A Development Consent Order made by the relevant Secretary of State pursuant to The Planning Act 2008 to authorise a Nationally Significant Infrastructure Project.

Defra: Department for Environment, Food and Rural Affairs

DfT: Department for Transport

Diffusion Tube

A passive sampler used for collecting NO_2 in the air.

EA: Environment Agency

EAL: Environment Assessment Levels

EA guidance for air quality

EIA: Environmental Impact Assessment

EIA Regulations

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

EPAQS: Expert Panel on Air Quality Standards

EPR: Environmental Permitting Regulations

ES: Environmental Statement

This report provides a written account of the findings of the EIA process.

EU: European Union

EU ETS: European Union Emission Trading Scheme

FGT: Flue Gas Treatment

The removal or reduction of pollutants from emissions to air including APCR (fly ash).

Fluvial

Of or found in Rivers.

FRA: Flood Risk Assessment

gCO₂/kWh: grams of carbon dioxide equivalent per kilowatt-hour of electricity generated

GHG: Greenhouse gases

GLVIA: Guidelines for Landscape and Visual Impact Assessment

Groundwater

Water that is found underground in the cracks and spaces in soil, sand and rock.

GtCOe: Gigatonnes of equivalent carbon dioxide

GWP: Global Warming Potential

measure of how much heat a greenhouse gas traps in the atmosphere up to a specific time horizon, relative to carbon dioxide

HDV: Heavy Duty Vehicle

A vehicle with a gross vehicle weight greater than 3.5 tonnes. Includes HGVs and buses

HE: Highways England

the government-owned company charged with operating, maintaining and improving England's motorways and major A roads.

HE: Historic England

The non-departmental public body that protects the historical environment of England by preserving and listing historic buildings, ancient monuments and advising central and local government.

HER: Historic Environment Record

Information services that provide access to comprehensive and dynamic resources relating to the archaeology and historic built environment of a defined geographic area.

HGV: Heavy Goods Vehicle

HIA: Health Impact Assessment

HLC: Historic Landscape Characterisation

a method of identification and interpretation of the varying historic character within an area that looks beyond individual heritage assets as it brigades understanding of the whole landscape and townscape into repeating HLC Types.

HRAPIE: Health Risks of Air Pollution in Europe

IAQM: Institute of Air Quality Management

IBA: Incinerator Bottom Ash

the ash that is left over after waste is burnt in an incinerator.

IBD: Internal Drainage Board

IED: Industrial Emissions Directive

IEMA: Institute of Environmental Management and Assessment

The independent professional body for environmental management professionals

Immission (noise)

The sound received by a noise sensitive receptor.

IPC: Infrastructure Planning Commission

IPPC: Integrated Pollution Prevention and Control

K3 as consented

K3 as consented pursuant to its existing Town and Country planning permission KCC/SW/10/444 (as amended) comprising the construction of a generating station with a





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generating capacity of 49.9MW and annual waste throughput of 550,000 tonnes.

K3 Site

The site/location of the K3 facility which is currently under construction and the K3 Proposed Development

K3 Proposed Development

Construction and operation of an onshore generating station with a generating capacity of 75MW and permissible waste throughput of 657,000tpa

The practical effect of the K3 Proposed Development

K3 as consented permitted to operate to an upgraded power capacity of 75MW and to process an additional 107,000 tonnes of waste per annum without any external additional construction works.

KCC: Kent County Council

ktCO2e/annum: Kilo-tonnes of carbon dioxide equivalent (CO2e) per year

ktCO2e: Kilo-tonnes of carbon dioxide

A measure of emissions of other greenhouse gases relative to one unit of CO₂.

LA_{90:} Background noise level

L_A max (Maximum noise level):

The maximum of the sound pressure levels recorded of a measurement period.

L_{Aea}

The equivalent continuous noise level of an activity.

L_{Aeq} , T:

Equivalent continuous sound pressure level with 'A' frequency weighting - The value of the sound pressure level of a continuous steady noise that, a measurement interval of time (t), has the same mean square sound pressure as the sound under consideration whose level varies with time.

LAeq Tr: Specific Noise Level

The equivalent continuous 'A'-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval.

LAQM: Local Air Quality Management

LAr, Tr: Rating Level

The specific noise level plus any adjustment for characteristic features of the noise.

LCA: Landscape Character Area

LLFA: Lead Local Flood Authority

Kent County Council is the LLFA.

LOAEL: Lowest Observed Adverse Effect Level

Noise level above which adverse effects on health and quality of life can be detected.

LVIA: Landscape and Visual Impact Assessment

LWS: Local wildlife Site

areas of land with significant wildlife value designated by the Local Authority.

MBGL: Metres below ground level

MCZ: Marine Conservation Zone

Areas that protect a range of nationally important, rare or threatened habitats and species are the English coast.

MHCLG: Ministry for Housing, Communities and Local Government

The UK Government department with responsibility for planning, housing and the implementation of EIA.

Mitigation measures

A term used in EIA to describe measures proposed to prevent, reduce and where possible offset any significant adverse environmental effects.

MJ/Kg: Megajoule per kilogram

Units for specific energy

MW: Megawatt

MWth

Thermal Megawatt refers to the thermal power procuced.

NCV: Net Calorific Value

The amount of usable heat energy released when a fuel is burned under conditions similar to those in which it is normally used.

NE: Natural England

NH₃: Ammonia

NNR: National Nature Reserve

designated by Natural England as key places for wildlife and natural features in England.

NOEL: No Observed Effect Level

Noise level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on human health and quality of life due to noise





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NO_2

Nitrogen dioxide

NO_x

Nitrogen oxides generally considered to be nitric oxide and NO_2 . Its main source is from combustion of fossil fuels, including petrol and diesel used in road vehicles

NPPF: National Planning Policy Framework

NPPG: National Planning Practice Guidance

NPS: National Planning Statements

NPSE: Noise Policy Statement for England

NRTF: National Road Traffic Forecasts

NSIP: Nationally Strategic Infrastructure

Projects

NSR: Noise (and Vibration) Sensitive Receptors

NSVR: Noise and Vibration Sensitive Receptors

NTM: National Transport Model
NTS: Non-Technical Summary

OS: Ordnance Survey

PAHs: Polycyclic Aromatic Hydrocarbons

Organic compounds containing only carbon and hydrogen that are composed of multiple aromatic rings.

PPV: Peak Particle Velocity

Is defined as the instantaneous maximum velocity reached by a vibrating element as it oscillates about its rest position.

PEC: Predicted Environmental Concentration

Calculated value of a chemical in the environment on the basis of exposure models

PHE: Public Health England

Formerly Health Protection Agency (HPA)

PINS: Planning Inspectorate

PM₁₀: Course Particulate Matter

Small airborne particles less than 10µm in

PM_{2.5}: Fine Particulate Matter

fine particles with a diameter of $2.5\mu m$ or less.

Primary Mitigation

Measures incorporated into the design of the proposals to avoid / reduce the potential for significant environmental effects.

PC: Process contribution

The environmental concentration of each substance released into the air.

PCBs: Polychlorinated Biphenyls

Organic chlorine compound used a dielectric and coolant fluid and are toxic.

RAMSAR

A wetland site designated to be of international importance un the Ramsar convention.

RCV: Refuse collection vehicle

Requirements

The 'requirements' at Schedule 2 of the draft Order that, amongst other matters, are intended to control the final details of the Proposed Development as to be constructed and also to control its operation, amongst other matters (e.g. control of noise levels and delivery hours) to ensure that it accords with the EIA and does not result in unacceptable impacts.

Residual Effects

Those significant effects remaining after mitigation.

Rochdale envelope

The approach applied to the EIA of a development whereby some flexibility needs to be retained in specific aspects of the design of the development at the consenting stage, which involves defining the maximum and minimum parameters of the development and assessing these to ensure that the environmental effects of the development in its final built form have been adequately and robustly assessed

SAC: Special Area of Conservation

A designated site under the European Union Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora.

SBC: Swale Borough Council

Secondary Mitigation

Measures required to help mitigate effects identified during the assessment process that have been mitigated by primary mitigation measures.

SLA: Special Landscape Area

a non-statutory designation applied by the local planning authority to define areas of high landscape importance within their administrative boundary.

SM: Scheduled Monument

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport.





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SOAEL: Significant Observed Adverse Effect Level

Noise level above which significant adverse effects on health and quality of life occur.

SPA: Special Protection Area

A designated site under the European Union Directive on the Conservation of Wild Birds.

SoS: Secretary of State for Business, Energy and Industrial Strategy

Specific energy

Energy per unit mass.

SRN: Strategic Road Network

Motorways and trunk roads, in this instance the $\ensuremath{\mathsf{M2}}$

SSBRA: Site Specific Bioaerosol Risk Assessment

SSSI: Site of Special Scientific Interest

A designated site by Natural England for an area which is of particular interest because of its fauna, flora or geological or physiological features;

SVOC: Semi-Volatile Organic Compound

a subgroup of VOCs that tend to have a higher molecular weight and higher boiling point temperature and are less easily vaporised.

TA: Transport Assessment

tCO₂e/MWh: tonnes of carbon dioxide equivalent (CO2e) per megawatt-hour

VOC: Volatile Organic Compound

compounds that easily become vapours or gases

WFD: Waste Framework Directive

WFD: Water Framework Directive

WKN Site

The proposed site/location of the WKN Proposed Development

WKN Proposed Development

Application for a proposed waste-to-energy facility, which would be a single facility capable of processing 390,000 tonnes of waste per annum, with a generating capacity of 42MW

WHO: World Health Organisation

WRATE: Waste and Resources Assessment Tool for the Environment

WTE: Waste-to-Energy

process of generating energy in the form of electricity and/or heat from the primary treatment of waste

ZTV: Zone of Theoretical Visibility

Area within which it is theoretically possible to view a building/object

