

# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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WKE (Middlesbrough) Ltd.

Waste Knot Energy  
Waste Knot Energy,  
Dawson's Wharf Industrial Estate,  
Riverside Park Road,  
Middlesbrough,  
TS2 1UT

### **Permit number**

EPR/NP3109LB

# Waste Knot Energy

## Permit number EPR/NP3109LB

### Introductory note

#### This introductory note does not form a part of the permit

The main features of the permit are as follows.

WKE are making this application for a Bespoke Installation Permit under The Environmental Permitting (England and Wales) Regulations 2018 (as amended) in order to operate a pellet manufacturing facility on their site at the North Sea Supply Base and Dawson's Wharf.

The subject site is located at North Sea Supply Base and Dawson's Wharf, Dawson's Wharf Industrial Estate, Riverside Park Road, Middlesbrough, TS2 1UT.

The site has previously been used by A.V.Dawson Limited for the operation of a waste transfer station, limited to the acceptance and storage of 250,000 tonnes per annum of Refuse Derived Fuel (RDF), Solid Refuse Fuel (SRF) and loose wood materials prior to their transfer for recovery and disposal overseas. These operations were undertaken under permit EPR/DB3506MN, from which this area has since been partially surrendered.

The proposed development of the site comprises a materials processing line to produce a pelletised fuel from selected SRF materials derived from commercial and industrial wastes. This product fuel pellet will be used within the European cement industry as a direct low carbon replacement for coal and PET coke within the cement manufacturing process.

There will be three processing lines each comprising screening and separation equipment in addition to driers, hammer mills and pellet mills.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/NP3109LB/A001	Duly made 25/01/21	Application for a pellet manufacturing facility on their site at the North Sea Supply Base and Dawsons Wharf.
Additional information	Received 30/06/2021	Email with operator comments and new drainage plan
Additional information	Received 26/07/2021	Email response to technical queries raised from the operator review comments together with updated documents: Application Support document _V3 dated July 2021 Annex A –Figures; Annex C – Energy Balance; Annex D – ERA; Annex J – EMS Waste acceptance; Annex L – OMP; Annex M – FPP.
Permit determined EPR/NP3109LB (PAS Billing ref. NP3109LB).	20/08/2021	Permit issued to WKE (Middlesbrough) Ltd.

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/NP3109LB**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**WKE (Middlesbrough) Ltd.** (“the operator”),

whose registered office is

**Waste Knot Energy,  
Riverside Park Road,  
Middlesbrough,  
Cleveland,  
TS2 1UT**

Company registration number 12294393

to operate an installation/part of an installation at

**Waste Knot Energy  
Waste Knot Energy,  
Dawson's Wharf Industrial Estate,  
Riverside Park Road,  
Middlesbrough,  
TS2 1UT**

to the extent authorised by and subject to the conditions of this permit.

<b>Name</b>	<b>Date</b>
<b>J Linton</b>	<b>20/08/2021</b>

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR3) The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR3) The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## 1.5 Climate change

1.5.1 The operator shall review and if appropriate update, at least every 4 years, the climate change adaptation risk assessment submitted with the permit application, and shall update the written management system as appropriate.

## 2 Operations

### 2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

2.1.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR3) Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

### 2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

### 2.3 Operating techniques

2.3.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR3) the activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 Waste shall only be accepted if:

- (a) it is of a type and quantity listed in schedule 2 table(s) S2.2; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

### **3 Emissions and monitoring**

#### **3.1 Emissions to water, air or land**

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

#### **3.2 Emissions of substances not controlled by emission limits**

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

#### **3.3 Odour**

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

#### **3.4 Noise and vibration**

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the

operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **3.5 Monitoring**

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 unless otherwise agreed in writing by the Environment Agency.

## **3.6 Fire prevention**

3.6.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.6.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

# **4 Information**

## **4.1 Records**

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

- (i) off-site environmental effects; and
- (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

## 4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR3) A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production/treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

## 4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
  - (i) inform the Environment Agency,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;



- (b) of a breach of any permit condition the operator must immediately—
  - (i) inform the Environment Agency, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

## 4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.



# Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1, AR2 & AR3 – production of fuel pellets (SRF)	S5.4A(1)(b)(ii)	<p>Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving pre-treatment of waste for incineration or co-incineration</p> <p><b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents.</p> <p><b>R5:</b> Recycling/reclamation of other inorganic materials.</p>	<p>3 pelletising process lines consisting of the following treatment:</p> <p>Manual and mechanical shredding, separation, sorting, screening and pelletising of non-hazardous waste into different components for recovery.</p> <p>A maximum of 45 tonnes of waste per hour shall be treated on site.</p>
<b>Directly Associated Activity</b>			
AR4	Waste Storage prior to treatment on site.	<p>Temporary storage of non-hazardous waste</p> <p><b>R13:</b> Storage of waste pending the operations numbered R1 and R13 (excluding temporary storage, pending collection, on the site where it is produced)</p>	<p>Temporary storage of non-hazardous waste prior to treatment on site under activities AR1, AR2, &amp; AR3.</p> <p>The maximum volume of non-hazardous waste stored on site, at any one time, shall not exceed 7,695m<sup>3</sup>.</p> <p>No waste shall be stored on site prior to treatment for longer than 4 days.</p> <p>Storage of non-hazardous waste shall take place within the building on an impermeable surface with a sealed drainage system</p> <p>Only non-hazardous wastes as specified in table S2.2 shall be accepted on site.</p> <p>No wastes consisting solely of dusts, powders, loose fibres shall be accepted on site.</p>

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
			No malodourous wastes or containing any organic fines shall be accepted on site.
AR5	Medium Combustion Plant to provide heat for the drying of SRF waste prior to entering the pelletising process lines AR1, AR2 & AR3.	Two gas burners with a 6.1MWth input for the production of heat for the low temperature belt driers (direct heating only) operating at a maximum of 90°C.	From receipt of natural gas to release of combustion products to air to production of heat for the drying plant and associated wastes removed from site.  Annual operating hours not restricted.
AR6	Drying of SRF waste prior to entering the pelletising process lines AR1, AR2 & AR3.	Drying of SRF waste using 2 low temperature belt driers (using direct heating only from the gas burners) operating at 90°C maximum.	Drying of SRF waste to achieve a moisture content of less than 10% prior to entering the 3 pelletising process lines (AR1, AR2 & AR3)
AR7	Storage of fuel pellets	Storage of fuel pellets pending recovery or disposal elsewhere.  <b>R13:</b> Storage of waste pending the operations numbered R1 and R13 (excluding temporary storage, pending collection, on the site where it is produced)  <b>D15:</b> Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)	Shall be stored in 4 storage silos (each with a maximum capacity of 97m <sup>3</sup> ) prior to the removal off site.
AR8	Pre-treatment of SRF prior to the pelletising process lines.	Treatment of SRF waste to remove any unwanted hard plastics prior to entering the	Infrared separator (NIR separator) to remove any residual hard plastics, including PVC.
AR9	Storage of waste produced on site	Temporary storage of non-hazardous waste produced on site, from the pelletising	Temporary storage of non-hazardous waste produced on site, from the pelletising

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
		process, prior to recovery or disposal off site.	<p>process, prior to recovery or disposal off site.</p> <p>Waste shall consist only of metal and heavy plastic wastes removed from the pelletising process.</p> <p>All such wastes shall be stored in the specified storage bay on impermeable surfaced areas with sealed drainage, prior to removal off site.</p> <p>The maximum quantity of waste stored pending removal off site shall not exceed 200 tonnes.</p>

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	Sections 1.2, 1.4, 1.6 and 1.8 of the application document(s) provided in response to section 3a – technical standards , Part B3 of the application form	Duly Made 25/01/2021
Application		
	Accident Management Plan	25/01/2021
	Technical data document	25/01/2021
	Noise Assessment	27/11/2020
	Odour Impact Assessment	27/11/2020
	Dust Management Plan (DMP)	27/11/2020
Revised Documents received	Application Support Document_v3	26/07/2021
	EMS (WAP ref WKE-E01)	26/07/2021
	Odour Management Plan	26/07/2021
	Fire Prevention Plan ref WKE-E10	26/07/2021

## Schedule 2 – Waste types, raw materials and fuels

<b>Table S2.1 Raw materials and fuels</b>	
<b>Raw materials and fuel description</b>	<b>Specification</b>
Natural mains gas	-
Diesel	-

<b>Table S2.2 Permitted waste types and quantities for production of fuel pellets from SRF waste</b>	
<b>Maximum quantity</b>	The maximum quantity of waste received at the site shall not exceed 378,000 tonnes per annum.
<b>Waste code</b>	<b>Description</b>
19 12 10	Combustible waste (Refused derived fuel) (consisting of SRF waste only)
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11*

## Schedule 3 – Emissions and monitoring

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1 - as shown on drawing ref Figure 4.1: Emissions locations.	Gas burners	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A1 - as shown on drawing ref Figure 4.1: Emissions locations.	Gas burners	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	30 mg/m <sup>3</sup>	Periodic	Within 4 months of permit issue/commissioning then every year or as requested by the Environment Agency.	BS EN 15267-3 [Note 1]
A2 - as shown on drawing ref Figure 4.1: Emissions locations.	Gas burners	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A2 - as shown on drawing ref Figure 4.1: Emissions locations.	Gas burners	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	30 mg/m <sup>3</sup>	Periodic	Within 4 months of permit issue/commissioning then every year or as requested by the Environment Agency.	BS EN 15267-3 [Note 1]
A3 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the dust filters on pelletising line 1	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A4 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the dust filters on pelletising line 1	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A5 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the cooler on pelletising line 1	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A6 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the dust filters on pelletising line 2	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A7 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the dust filters on pelletising line 2	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A8 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the cooler on pelletising line 2	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A9 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the dust filters on pelletising line 3	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A10 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the dust filters on pelletising line 3	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1
A11 - as shown on drawing ref Figure 4.1: Emissions locations.	Exhaust emission from the cooler on pelletising line 3	Particulate matter	5 mg/Nm <sup>3</sup>	Hourly average	3 monthly	BS EN 13284-1

Note 1: Concentrations are defined at a temperature of 27.3.15K, a pressure of 101.3kPa at 17% O<sub>2</sub> with no correction for water vapour.

<b>Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
Emission point/s as shown on drawing no.	Uncontaminated site source water from roofs	No parameter set	No limit set	--	--	--



**Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site—  
emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S3110-8000- 0004.	and other non- operational areas					

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Point source emissions to air Parameters as required by condition 3.5.1	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11.	Every 12 months	1 January

<b>Table S4.2: Annual production/treatment</b>	
<b>Parameter</b>	<b>Units</b>
Fuel pellet production	tonnes
Waste input	tonnes
Waste removed from site	tonnes

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Natural gas usage	Annually	m <sup>3</sup>
Energy usage	Annually	MWh

<b>Table S4.4 Reporting forms</b>		
<b>Parameter</b>	<b>Reporting form</b>	<b>Form version number and date</b>
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to sewer	Emissions to Sewer Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Waste returns	E-Waste Return Form	-

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the breach of permit conditions not related to limits</b>	
<b>To be notified within 24 hours of detection</b>	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

<b>(d) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## **Part B – to be submitted as soon as practicable**

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	

Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“Batteries Directive” means Directive 2006/66/EC of the European Parliament and of the Council on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC”, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“disposal” means any of the operations provided for in Annex I to the Waste Framework Directive.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to the Waste Framework Directive.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

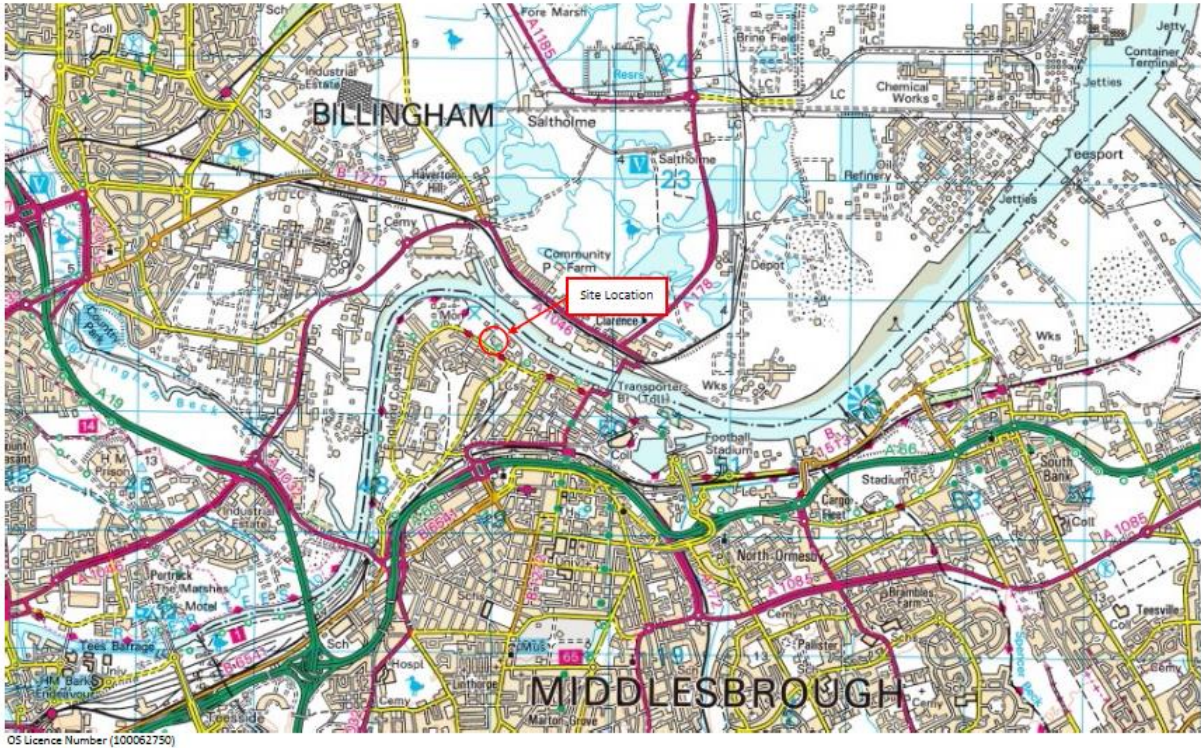
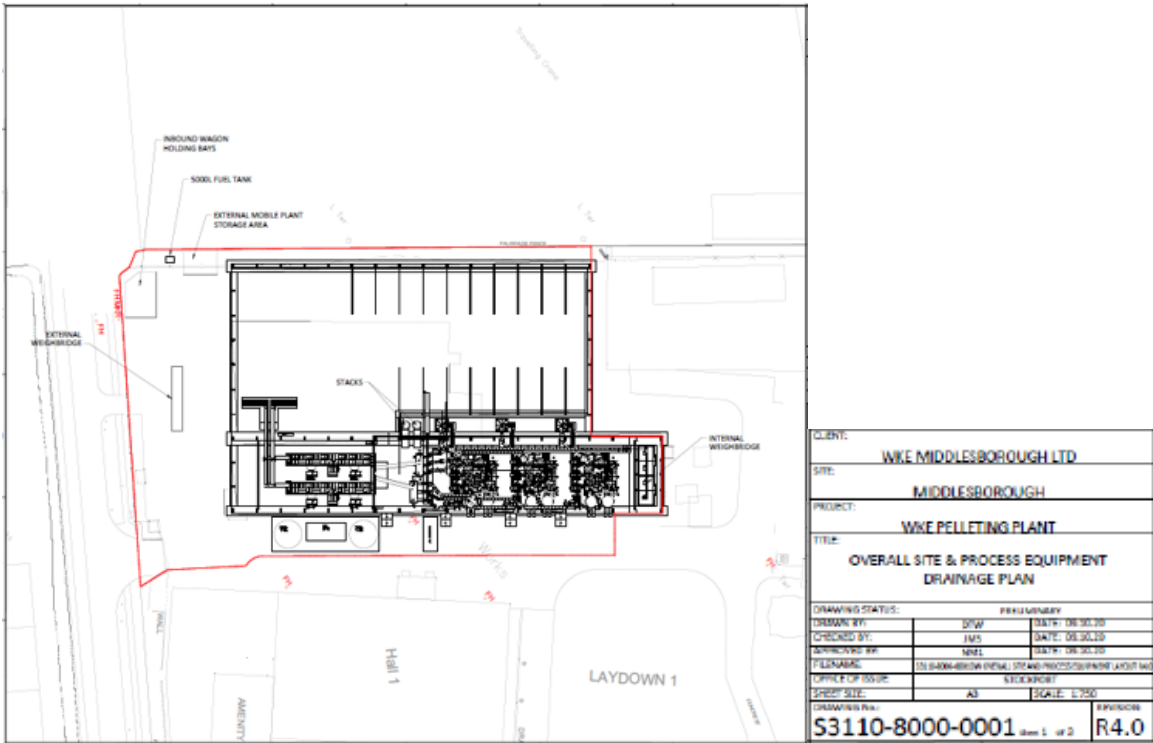
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or

in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content “year” means calendar year ending 31 December.

# Schedule 7 – Site plan



Do not scale off this drawing All dimensions to be confirmed on site This drawing is copyright of Sol Environment Ltd This drawing to be read in conjunction with relevant consultant drawings and specifications	Rev:	Date:	Desc:	Client:	WKE (MIDDLESBOROUGH) LTD	Job No.:	SOL1008WKE01	Drawing No.:	WKE01	
	0	NOV 20	Original	Project:	PERMIT APPLICATION	Date:	NOVEMBER 2020	Revision:	0	
					Drawing Title:	SITE LOCATION	Drawn By:	EMILY HINGSTON	Scale:	NTS



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END OF PERMIT





**Signed:**

**Date:**

(Authorised to sign as representative of the operator)

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**Guidance for use:** Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- <sup>1</sup> Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- <sup>2</sup> Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- <sup>3</sup> For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- <sup>4</sup> Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.



**Signed:**

**Date:**

(Authorised to sign as representative of the operator)

---

**Guidance for use:** Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- <sup>1</sup> Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- <sup>2</sup> Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- <sup>3</sup> For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- <sup>4</sup> Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

## Energy Usage Reporting Form

Permit number: **EPR/NP3109LB**

Operator: **WKE (Middlesbrough) Ltd**

Facility name: **Waste Knot Energy**

Energy Usage Reporting Form: version 1, 08/03/2021

Reporting of energy usage for the year

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) <sup>2</sup>
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Electricity imported as primary energy 1 – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Natural gas	<i>[insert annual consumption in MWh where natural gas is used]</i>	<i>[insert annual consumption in MWh/unit where natural gas is used]</i>
Diesel		

<b>Operator's comments</b>

**Signed:**

(Authorised to sign as representative of the operator)

**Date:**

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**Guidance for use:** Use this form to report your annual energy usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

- <sup>1</sup> Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.
- <sup>2</sup> Divide energy consumption by an appropriate unit of raw material processed or product output.

# Other Performance Parameters Reporting Form

Permit number: **EPR/NP3109LB**

Operator: **WKE (Middlesbrough) Ltd**

Facility name: **Waste Knot Energy**

Other Performance Parameters Reporting Form: version 1, 08/03/2021

Reporting of other performance parameters for the period from \_\_\_\_\_ to \_\_\_\_\_

Parameter	Units

<b>Operator's comments</b>

**Signed:**

**Date:**

(Authorised to sign as representative of the operator)

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**Guidance for use:** Use this form to report the performance parameters (other than water and energy) required by your permit. Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.