



# Notice of variation and consolidation with introductory note

**The Environmental Permitting (England & Wales) Regulations 2010**

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Lynemouth Power Limited

Lynemouth Power Station

Ashington

Northumberland

NE63 9NW

**Variation application number**

EPR/FP3137CG/V005

**Permit number**

EPR/FP3137CG

# Lynemouth Power Station

## Permit number EPR/FP3137CG

### Introductory note

#### **This introductory note does not form a part of the notice.**

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies that all the conditions of the permit have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made and contains all conditions relevant to this permit.

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This Permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED), is varied by the Environment Agency to implement the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

As well as implementing Chapter III of IED, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issued. It also modernises all conditions to reflect the conditions contained in our current generic permit template.

The Operator has chosen to operate this LCP under the TNP compliance route. This is a change from the previous operating regime which was NERP.

The variation notice uses an updated LCP number in accordance with the most recent DEFRA LCP reference numbers. The LCP reference has changed as follows:

- LCP 87A is changed to LCP 418.

Originally, this was a coal-fired power station supplying electricity to a smelter plant operated by Alcan Aluminium UK Limited. As the smelter closed, the power station was transferred to Lynemouth Power Limited to supply the National Grid. Under the Transitional National Plan (TNP), the operator plans to convert to burning 100% biomass, with a resultant decrease in emissions of SO<sub>2</sub> and NO<sub>x</sub>. Two newly prescribed activities permitting the handling, storage and treatment of ash have been included, following new requirements introduced by the IED. The permit now includes all combustion plants on site >1MW<sub>th</sub>. These are not new plant, simply previously unlisted plant. The existing ambient monitor station measures SO<sub>2</sub> in the local environment and will be supplemented with a new NO<sub>x</sub> monitor, to record the reduction in emissions as a result of the biomass conversion.

The rest of the installation is unchanged and continues to be operated as follows:

Lynemouth Power Station is located adjacent to the North Sea at National Grid Reference NZ 30498 89972. The nearest residential areas are the towns of Lynemouth at 800m to the north-west and Newbiggin-by-the-Sea at 1.4km to the south. The Northumbrian Coast SAC/SPA and Ramsar sites are located at 700m to the south and 1.2km to the north of the power station and coastal SSSIs at 500m to the south and 1km to the north of the site.

This permit regulates a 1050MW<sub>th</sub> power station providing electricity to the National Grid and, once converted from coal, will comprise three identical pulverised solid biomass-fuelled generating sets with waste gases released to air via three flues, contained within a common windshield (stack height 114 metres). The biomass pellets will be imported from various sources and delivered to site by train and road.

Emissions to air from burning biomass include oxides of nitrogen, carbon monoxide and dust with low levels of hydrogen chloride and sulphur dioxide. Oxides of nitrogen will be minimised by using primary measures

and low NOx burners, dust and dioxins will be minimised using electrostatic precipitators, and sulphur dioxide and hydrogen chloride emissions will be minimised by controlling the fuel sources.

The efficient once-through cooling system uses cold water from the North Sea. Returning cooling water and treated boiler water are discharged to the North Sea via an outfall whereas treated site sewage, treated ash lagoon overflow, treated surface water drainage and drainage from the surrendered Alcan smelter site area, are discharged to the North Sea foreshore outfall. Biomass ash will be transferred to the adjacent ash storage lagoon (permit number EPR/FP3437CZ) until alternative uses are established, or treated at this site to meet an agreed specification prior to resale. Noise attenuation measures have been implemented as required and the Installation has an EMS accredited to ISO14001 and ESOS Regulations certified to ISO50001:2011.

The schedules specify the changes made to the permit.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application BL6861IT	14/12/01	
Request for information	10/04/02	
Response to request for information	04/05/02	
Request for information	20/05/02	
Response to request for information	14/06/02	
Request for information	26/07/02	
Response to request for information	26/09/02	
Site Report – received	24/10/02	
Noise Survey – received	01/11/02	
Permit Issue – BL6861IT EPR/BL6861/A001	14/05/03	Determined
Application for Variation WP3830BQ EPR/BL6861IT/V002	13/09/04	1. Recycle third party anode butts. Additional storage buildings 2. Extension of introduction of new limit for HALE 3. Increase S content of green anode
Additional information received	18/01/04	
Variation WP3830BQ EPR/BL6861IT/V002	09/11/04	Determined
Application for Variation YP3631SV EPR/BL6861IT/V003	25/07/05	1. Modifications to potline emissions 2. Modification to A17 emission limits 3. Potline operating amperage 4. 12 monthly rolling average dust reporting 5. Specify areas for spent potline storage, demolition and crushing/screening 6. Chlorine abatement plant
Variation YP3631SV EPR/BL6861IT/V003	10/08/05	Determined

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application for Substantial Variation UP3234LL EPR/BL6861IT/V004	31/03/06	Extend installation boundary to include Power Station
Request for further information	15/06/06	
Response to request for further information	17/08/06	
Request for further information	14/07/06	
Response to request for further information	17/08/06	
Request for further information	11/08/06	
Response to request for further information	31/08/06	
Response to request for further information	06/08/07	
Variation UP3234LL (Consolidated Permit) EPR/BL6861IT/V004	31/10/07	Determined
Application for Variation EA/EPR/BL6861IT/V005	31/10/08	12 changes to various aspects of the permit (reference KP3935GM)
Response to request for further information	28/10/08	
Response to request for further information	13/02/09	
Variation EA/EPR/BL6861IT/V005	20/02/09	Determined
Application for Variation EA/EPR/BL6861IT/V006	04/05/10	Administrative change to amend the permit holders registered office address (reference UP3332TT).
Variation EA/EPR/BL6861IT/V006	27/05/10	Determined
Variation EA/EPR/BL6861IT/V007	Determined 18/06/10	Agency initiated variation to implement the requirements of the Pollution, Prevention and Control (Combustion Plants) (England) Directions 2007 (references QP3236TF).
Application for Variation EA/EPR/BL6861IT/V008	Received 08/09/10	Variation to amend the methodology & mass emissions reporting, removal of rolling reduction in emission limits, use of PFO and RALF (reference SP3130HF).
Variation EA/EPR/BL6861IT/V008	Determined 06/12/10	
Application for Variation EA/EPR/BL6861IT/V009	Received 28/07/11	Variation for conversion of the power station to 100% biomass fuel (reference MP3434HF).

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Requests for further information	09/08/11 17/08/11 18/08/11 14/10/11	Received 17/08/11 Received 20/08/11 Received 12/09/11 Received 26/10/11
Variation EA/EPR/BL6861IT/V009	Determined 15/11/11	
Application EPR/BL6861IT/T001.	Duly made 28/11/12	Application to transfer the power station section of permit EPR/BL6861IT, to Lynemouth Power Limited.
Transfer EPR/FP3137CG	18/12/12	Transfer of power station complete. Determined.
Agency Initiated Variation EPR/FP3137CG/V002	11/03/13	Environment Agency initiated variation to add IC22, to ensure compliance with the Eels Regulations. Determined.
Application for Variation EPR/FP3137CG/V003	Duly made 24/04/14	Application to extend site boundary and included new coal storage area.
Variation Determined EPR/FP3137CG/V003	12/05/14	
Agency Initiated Variation EPR/FP3137CG/V004	Issued 29/09/14	Environment Agency initiated variation to add IC25, requiring a cost benefit appraisal to ensure compliance with the Eels Regulations. Determined. Effective from 01/10/14.
Regulation 60 Notice sent to the Operator	31/10/14	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency Initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Regulation 60 Notice response	31/03/15	Response received from the Operator.
Request for further information	29/10/15	
Response to request for further information	06/11/15	Response covered the following issues: BAT justification for proposed dust elv, listing all combustion activities >1MWth, MSUL/MSDL data for coal during rolling biomass conversion programme, update on status of LLD declaration.
Variation determined EPR/FP3137CG/V005 (PAS Billing ref: PP3934AB)	22/12/2015	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

### Permit number

**EPR/FP3137CG**

### Issued to

**Lynemouth Power Limited** ("the operator")

whose registered office is

**Trigonos**

**Windmill Hill Business Park**

**Whitehall Way**

**Swindon**

**SN5 6PB**

company registration number 07866585

to operate a regulated facility at

**Lynemouth Power Station**

**Ashington**

**Northumberland**

**NE63 9NW**

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

<b>Name</b>	<b>Date</b>
<b>Anne Nightingale</b>	<b>22/12/2015</b>

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

**EPR/FP3137CG**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/FP3137CG/V005 authorising,

**Lynemouth Power Limited** (“the operator”),

whose registered office is

**Trigonos**

**Windmill Hill Business Park**

**Whitehall Way**

**Swindon**

**SN5 6PB**

company registration number 07866585

to operate an installation at

**Lynemouth Power Station**

**Ashington**

**Northumberland**

**NE63 9NW**

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

<b>Name</b>	<b>Date</b>
<b>Anne Nightingale</b>	<b>22/12/2015</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.

### 1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
- (c) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (d) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

1.3.1 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;
- (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.

## **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").

### **2.2 The site**

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

### **2.3 Operating techniques**

- 2.3.1 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 Without prejudice to condition 2.3.1, the activities shall be operated in accordance with the "Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines" revision 1 dated February 2015 or any later version unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 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.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.5.
- 2.3.6 The following conditions apply where there is a malfunction or breakdown of any abatement equipment:  
Unless otherwise agreed in writing by the Environment Agency:
- (i) if a return to normal operations is not achieved within 24 hours, the operator shall reduce or close down operations, or shall operate the activities using low polluting fuels;
  - (ii) the cumulative duration of breakdown in any 12-month period shall not exceed 120 hours; and
  - (iii) the cumulative duration of malfunction in any 12-month period shall not exceed 120 hours.
- 2.3.7 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.8 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.

2.3.9 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.

## **2.4 Improvement programme**

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **2.5 Pre-operational conditions**

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

# **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 The emission values from emission points AU1, AU2 and AU3 listed in schedule 3 table S3.1, measured during periods of abatement equipment malfunction and breakdown shall be disregarded for the purposes of compliance with Table S3.1 emission limit values.

3.1.4 Total annual emissions from the LCP emission points set out in schedule 3 tables S3.1 of a substance listed in schedule 3 table S3.3, shall not exceed the relevant limit in that table.

3.1.5 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; and
- (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; and
  - (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; and
  - (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 and S3.2.
- 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 continuous), 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 table S3.1 unless otherwise agreed in writing by the Environment Agency.

## 3.6 Monitoring for the purposes of the Industrial Emissions Directive Chapter III

- 3.6.1 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive.
- 3.6.2 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in condition 3.6.7, the operator shall:
- (a) within 28 days of becoming aware of this fact, review the causes of the invalidations and submit to the Environment Agency for approval, proposals for measures to improve the reliability of the continuous measurement systems, including a timetable for the implementation of those measures; and
  - (b) implement the approved proposals.
- 3.6.3 Continuous measurement systems on emission points from the LCP shall be subject to quality control by means of parallel measurements with reference methods at least once every calendar year.
- 3.6.4 Unless otherwise agreed in writing by the Environment Agency in accordance with condition 3.6.5 below, the operator shall carry out the methods, including the reference measurement methods, to use and calibrate continuous measurement systems in accordance with the appropriate CEN standards.
- 3.6.5 If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality shall be used, as agreed in writing with the Environment Agency.
- 3.6.6 Where required by a condition of this permit to check the measurement equipment, the operator shall submit a report to the Environment Agency in writing, within 28 days of the completion of the check.
- 3.6.7 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3, table S3.1; the Continuous Emission Monitors shall be used such that:
- (a) for the continuous measurement systems fitted to the LCP release points defined in Table S3.1 the validated hourly, monthly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval;
  - (b) the 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%;
  - (c) the 95% confidence interval for dust releases of a single measured result shall be taken to be 30%;
  - (d) the 95% confidence interval for carbon monoxide releases of a single measured result shall be taken to be 10%;
  - (e) an invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing; and
  - (f) any day, in which more than three hourly average values are invalid shall be invalidated.

## **3.7 Pests**

- 3.7.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.7.2 The operator shall:
- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests; and
  - (b) implement the pests management 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 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 resource efficiency metrics set out in schedule 4 table S4.2;
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule; and
  - (d) where condition 2.3.6 applies, the cumulative duration of breakdown and cumulative duration of malfunction in any 12 month period.

- 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, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.
- 4.2.6 Within 10 days of the notification of abatement equipment malfunction or breakdown (condition 2.3.6) the operator shall submit an Air Quality Risk Assessment as outlined in the IED Compliance Protocol (condition 2.3.2).
- 4.2.7 Unless otherwise agreed in writing with the Environment Agency, within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form IED RTA1, listed in table S4.4, the information specified on the form relating to the site's mass emissions.

### **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.
  - (d) of any malfunction or breakdown of abatement equipment relating to condition 2.3.6, the operator shall notify the Environment Agency within 48 hours unless notification has already been made under (a) to (c) above.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, or 4.3.1 (d) where the information relates to malfunction

or breakdown of abatement equipment 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:
- (c) any change in the operator's name or address; and
  - (d) any steps taken with a view to the dissolution of the operator.
- 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.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
  - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
  - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.
- 4.3.8 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

## **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

<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</b>	<b>Limits of specified activity</b>
A1	Section 1.1 A(1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	LCP 418: Operation of three biomass-fired boilers (total of 1050MWth) to generate electricity for export to the National Grid, and steam for adjacent businesses, as required.	From the receipt, storage and handling of biomass, to the discharge of exhaust gases via abatement equipment, control of dust and wastes and the generation of electricity and steam for export.
A2	Other combustion activities over 1MWth	Two LPG-fired boilers to provide hot water and heating. Each boiler is 860kWth, discharging via one windshield.	From the receipt, storage, handling of LPG, to the use in the boilers.
A3	Section 3.5 Part B (f): Loading, unloading or storing pulverised fuel ash in bulk prior to further transportation in bulk	Pulverised fuel ash (PFA) handling and storage	From removal of ash from the combustion process to dispatch from site.
A4	Section 5.4 Part A(1)(b)(iii): treatment of slags and ashes.	Treating pulverised fuel ash (PFA)	From receipt of PFA from the combustion process to dispatch of classified PFA for onward handling
<b>Directly Associated Activity</b>			
A5	Directly associated activity	Fuel storage	From receipt of raw material to dispatch for use.
A6	Directly associated activity	Oil storage	From receipt of raw materials to dispatch for use.
A7	Directly associated activity	Surface water drainage and process effluent	Handling and storage of site drainage and process effluent until discharge to controlled waters.
A8	Directly associated activity	Boiler water treatment	From receipt of raw materials to dispatch to effluent system.

<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</b>	<b>Limits of specified activity</b>
A9	Directly associated activity	Use of North Sea water to condense steam	From pumping, filtering and chemical treatment of water, its use on the condensers, to the discharge into the North Sea.
A10	Directly associated activity	Waste handling and storage	From waste generation, storage and monitoring to dispatch.
A11	Directly associated activity	Ventilation air systems, dust collectors and air extract systems additional to those forming part of the Schedule 1 activities.	From point of arising of aerial discharges to entry into the atmosphere, including all discharge systems and abatement equipment.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application BL6861IT	The response to questions 2.1, 2.2 and 2.3 given in sections 2.3, 2.3.2, 2.3.9, 2.3.10, 2.3.11, 2.3.12, 2.3.13 and 2.3.14 of the application	14/12/2001
Response to Schedule 4 Part 1 Notice	Response to questions 2 and 4	13/05/2002
Response to Schedule 4 Part 1 Notice	Responses to questions 6, 7, 8, 9, 10, 11 and 13	24/06/2002
Response to Schedule 4 Part 1 Notice	Response to questions 1, 2 and 3	30/09/2002
Application for Variation WP3831SV	Whole document	13/09/2004
Application for Variation YP3631SV	Whole document	25/07/2005
Application for Variation UP3234LL	Responses to questions B2.1, B2.2 and B2.3	31/03/2006
Receipt of additional information to the application	Whole document	17/08/2006
Receipt of additional information to the	Whole document	06/08/2007

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
application		
Application for Variation EA/EPR/BL6861IT/V008	Whole document including additional variation application information dated August 2010 submitted with variation application SP3130HF	08/09/2010
Supplementary information	Specification for HFO and gas oil fuel mix	12/11/2010
Application for variation EA/EPR/BL6861IT/V009	Whole document. Variation for conversion of the power station to 100% biomass fuel (reference MP3434FW)	28/07/2011
Requests for further information	Whole response relating to the biomass conversion.	17/08/2011
Requests for further information	Whole response relating to the biomass conversion.	20/08/2011
Requests for further information	Whole response relating to the biomass conversion.	12/09/2011
Requests for further information	Whole response relating to the biomass conversion.	26/10/2011
Application for transfer EA/EPR/FP3137CG/T001	Whole application to transfer the power station to Lynemouth Power Limited	28/11/2012
Written agreement of minor change	Removal of requirement for MCERTS flow monitoring on emissions to controlled water	06/06/2013
Written agreement of minor change	Revised Air Quality Management Plan	17/01/2014
Application for variation EA/EPR/FP3137CG/V003	Whole document to extend boundary and include new coal storage area	24/04/2014
Response to Improvement Condition IC24 (site closure plan review)	Whole document	24/09/2014
Response to Improvement Condition IC23 (SPMP review)	Whole document	30/09/2014
Receipt of additional information to the Regulation 60(1) Notice requested by letter dated 31/10/2014	Compliance routes and operating techniques identified in response to questions 2 (TNP and LLD), 4 (configuration of LCP), 5 (net rated thermal input), 6 (MSUL/MSDL definition), 8 (site specific ELVs), 11 (monitoring).	Received 31/03/2015
Receipt of additional information to the Regulation 60(1) Notice requested by email dated 29/10/2015	BAT justification for PM ELVs, other combustion activities, MSUL/MSDL and additional LLD information.	Received 06/11/2015

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Receipt of additional information to the Regulation 60(1) Notice.	Confirmation of the compliance routes chosen for LCP 418. LLD declaration was rescinded.	Received 01/12/2015
Written agreement of minor change	Proposal to commence ambient NOx monitoring during Q1/Q2 2016 to confirm the predicted reductions in emissions as a result of the conversion to biomass. Construction village effluent treatment proposals.	03/12/2015

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC1 – IC16	Complete	
IC17	A written report shall be submitted to the Environment Agency at the Reporting Address for approval. The report shall include the results of the commissioning of the converted Power Station, providing details of the performance of the installation against the conditions of this Permit and giving a clear demonstration of BAT (Best Available Technique).	6 months after the completion of commissioning of the first main unit on solid biomass.
IC18	A written report shall be submitted to the Environment Agency at the Reporting Address for approval. The report shall include the results of noise surveys associated with the converted Power Station in accordance with the Combustion Technical Guidance Note and the Horizontal Guidance for Noise H3. Where appropriate, the report shall contain dates for the implementation of individual measures identified. The individual measures detailed in the report shall be designed and implemented by the operator from the date of approval or such other date as may be specified in that approval.	6 months after the completion of commissioning of the first main unit on solid biomass.
IC19	A written report shall be submitted to the Environment Agency at the Reporting Address for approval. The report shall include the results of main boilers' stack sampling and/or monitoring, to demonstrate concentrations and mass flows of operational emissions of dust (PM10 and PM2.5), sulphur dioxide, oxides of nitrogen and HCl to air and their comparison with amounts predicted in the application and in accordance with the monitoring protocol submitted under pre-operational measure PO03 and agreed by the Environment Agency. A clear demonstration of BAT (Best Available Technique) for air emissions shall be presented, including proposals for new site specific ELVs during the TNP.	Date of completion of biomass commissioning to be agreed with the EA.  IC19 to be submitted within 1 month of the agreed end of commissioning date.
IC20	A revised closure plan shall be submitted to the Environment Agency at the Reporting Address for approval. The plan shall take into consideration the biomass handling, storage and processing facilities in addition to any other changes made since the last update of the closure plan.	6 months after the completion of commissioning of the first main unit on solid biomass.
IC21	A written report shall be submitted to the Environment Agency at the Reporting Address for approval. The report shall demonstrate how effectively the unit / power station energy efficiency predicted in the response to PO05 has been met.	6 months after the completion of commissioning of the first main unit on solid biomass.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC22 – IC24	Complete	
IC25	<p>The Operator has undertaken a review of the existing screening arrangements with reference to the Eels (England and Wales) Regulations 2009 (SI 2009/3344) and the Environment Agency “Safe Passage for Eel” Regulatory Position Statement version 1 dated July 2012 (and as amended February 2013) in response to Improvement Programme reference 22).</p> <p>The Environment Agency has determined that the site does not comply with the requirements for safe passage of eel and the Operator is now required to complete a cost benefits appraisal of best available technique with reference to the Environment Agency “Safe Passage for Eel: Guidance on Exemptions” as a screening tool.</p> <p>a) If the Cost Benefit Assessment shows that the Benefits are greater than the costs by a factor of 1.5 or more, then the Operator shall submit to the Environment Agency for review a report setting out the costs and the technical and economic feasibility to introduce the improvements to achieve best available technique.</p> <p>b) If the Cost Benefit Assessment shows that the Benefits are not greater than the costs by a factor of 1.5 or more, then the Operator shall, with reference to the Environment Agency “Safe Passage for Eel: Guidance on exemptions, assess which alternative measure, or combination of alternative measures, could be implemented under a case of a conditioned Exemption. The Operator shall submit a report to the Environment Agency setting out the costs and the technical and economic feasibility of implementing their proposed alternative measure or measures.</p> <p>In all cases, the submission shall contain relevant timescales in accordance with the Safe Passage for Eel Regulatory Position Statement version 1 dated July 2012 (as amended 2013).</p> <p>The proposals shall be implemented following written approval of the Environment Agency.</p> <p>Whilst undertaking this Improvement Condition, the Operator shall be operating under exemption from the requirements to place eel screen diversion structures pursuant to Regulation 17(5)(a) of the Eels (England and Wales) Regulations 2009. The exemption will remain in place until the Environment Agency has provided written approval that the Improvement Condition has been deemed complete.</p>	Received on 29/06/2015, under assessment by the Environment Agency.
IC26	<p>The Operator shall submit a report in writing to the Environment Agency for approval. The report shall define and provide a written justification of the “minimum start up load” and “minimum shut-down load”, for each unit within the LCP as required by the Implementing Decision 2012/249/EU in terms of:</p> <p>A) The output load (i.e. electricity, heat or power generated) (MW); and</p> <p>B) This output load as a percentage of the rated thermal output of the combustion plant (%).</p> <p>And / Or</p> <p>C) At least three criteria (operational parameters and / or discrete processes as detailed in the Annex) or equivalent operational parameters that suit the technical characteristics of the plant, which can be met at the end of start-up or start of shut-down as detailed in Article (9) 2012/249/EU.</p>	<p>Date of completion of biomass commissioning to be agreed with the EA.</p> <p>IC26 to be submitted within 1 month of the agreed end of commissioning date.</p>

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC27	<p>The operator shall provide a report in writing to the Environment Agency for acceptance which provides the net rated thermal input for LCP86. The net rated thermal input is the 'as built' value unless the plant has been modified significantly resulting in an improvement of the plant efficiency or output that increases the rated thermal input (which typically requires a performance test to demonstrate that guaranteed improvements have been realised).</p> <p>Evidence to support this figure, in order of preference, shall be in the form of:-</p> <ul style="list-style-type: none"> <li>a) Performance test results* during contractual guarantee testing or at commissioning (quoting the specified standards or test codes),</li> <li>b) Performance test results after a significant modification (quoting the specified standards or test codes),</li> <li>c) Manufacturer's contractual guarantee value,</li> <li>d) Published reference data, e.g., Gas Turbine World Performance Specifications (published annually);</li> <li>e) Design data, e.g., nameplate rating of a boiler or design documentation for a burner system;</li> <li>f) Operational efficiency data as verified and used for heat accountancy purposes,</li> <li>g) Data provided as part of Due Diligence during acquisition,</li> </ul> <p>*Performance test results shall be used if these are available.</p>	<p>Date of completion of biomass commissioning to be agreed with the EA.</p> <p>IC27 to be submitted within 3 months of the agreed end of commissioning date.</p>
IC28	<p>For LCPD LCP 87A (now LCP 418 under IED). Annual emissions of dust, sulphur dioxide and oxides of nitrogen including energy usage for the year 01/01/2015 to 31/12/2015 shall be submitted to the Environment Agency using form AAE1 via the NERP Registry. If the LCPD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry.'</p>	28/01/2016
IC29	<p>The operator shall carry out an assessment of the impact on the environment of pulverised fuel ash and furnace bottom ash waste resulting from the burning of biomass. The assessment shall be carried out following the methodology agreed in accordance with pre operational condition PO 06 in table S1.4. A report on the findings of the assessment shall be submitted in writing to the Environment Agency for approval.</p>	<p>Within 12 months from the first deposit in the landfill of ash waste resulting from the burning of biomass or other period agreed in writing with the Agency</p>

<b>Table S1.4 Pre-operational measures for future development</b>		
<b>Reference</b>	<b>Operation</b>	<b>Pre-operational measures</b>
PO 01	Permanent use of biomass	<p><b>Commissioning plan</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation, a written commissioning plan shall be submitted to the Environment Agency for approval. The plan shall include written procedures containing actions to be taken to ensure that appropriate measures will be used to minimise releases under all anticipated operating conditions. The approved commissioning plan shall be implemented from the date of approval or such other date as may be specified in that approval.</p>
PO 02	Permanent use of biomass	<p><b>Fugitive emissions plan</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation, a written revised fugitive emissions management plan shall be submitted to the Environment Agency for approval. The report shall detail the measures to be used to control fugitive emissions and shall be accordance with the Combustion Technical Guidance Note and Horizontal Guidance Note H5 (Guidance on site condition report). This shall consider but not be limited to the control of fugitive releases of dust especially from raw materials and ash handling and also the control of fugitive releases from the handling and storage of waste.</p> <p>The approved fugitive emissions management plan shall be implemented from the date of approval or such other date as may be specified in that approval.</p>
PO 03	Permanent use of biomass	<p><b>Air monitoring protocol</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation a written report shall be submitted to the Environment Agency for approval. The report shall contain a protocol detailing the methodology for monitoring the release of substances to air from the combustion process listed in improvement condition IC19. The protocol shall include but not be restricted to a variety of operating scenarios which may include start up and shut down and varying operating loads.</p>
PO 04	Permanent use of biomass	<p><b>Environmental Management System</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation a copy of the site's revised Environment Management System (EMS) shall be submitted to the Environment Agency for approval. The revision shall be developed in line with the requirements set out in the Combustion Technical Guidance Note and Horizontal Guidance Note H6: Environmental Management Systems.</p> <p>The approved revised EMS shall be implemented from the date of approval or such other date as may be specified in that approval.</p>

<b>Reference</b>	<b>Operation</b>	<b>Pre-operational measures</b>
PO 05	Permanent use of biomass	<p><b>Efficiency report</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation a written energy efficiency report shall be submitted to the Environment Agency for approval. The report shall detail the predicted unit / power station efficiency and the methodology used to calculate this parameter. The data provided shall seek to validate the conclusions of the Full Unit trial as detailed in the Engineering Report TECH/JJB/1747/11, dated September 2011. The methodology shall make clear the extent of plant across which the efficiency is calculated, the load factor, the parasitic load, the averaging period and any other determining factors. 2009 and / or 2010 data may be referenced if necessary.</p>
PO 06	Permanent use of biomass	<p><b>BAT review</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation a written BAT review report shall be submitted to the Environment Agency for approval. The report shall contain a review of the installation's operating techniques and management system against the Environment Agency's Best Available Techniques for Pulverised Combustion of Wood Pellets in Power Plant guidance V1.0 September 2013, together with a plan for implementation of any improvements identified. The plan shall be implemented by the operator from the date of approval in writing by the Agency.</p>
PO 07	PFA treatment and handling	<p><b>Management of PFA</b></p> <p>At least two months (or such other date as agreed in writing by the Environment Agency) before 100% biomass is burned in the first unit of the installation a written ash treatment and handling report shall be submitted to the Environment Agency for approval. The report shall contain detailed design information for the storage, treatment and handling of PFA, indicating how dust emissions are controlled to BAT standards and listing any new emission points. Obtain the Environment Agency's written approval to the proposals. Comply with any measure in the approval, as appropriate.</p>

<b>Emission Point and Unit Reference</b>	<b>"Minimum Start-Up Load" Load in MW and as percent of rated power output (%)</b>	<b>"Minimum Shut-Down Load" Load in MW and as percent of rated power output (%)</b>
A1 LCP 418 AU1	To be agreed in writing with the Environment Agency, following the outcome of improvement condition IC26	To be agreed in writing with the Environment Agency, following the outcome of improvement condition IC26
A1 LCP 418 AU2	To be agreed in writing with the Environment Agency, following the outcome of improvement condition IC26	To be agreed in writing with the Environment Agency, following the outcome of improvement condition IC26
A1 LCP 418 AU3	To be agreed in writing with the Environment Agency, following the outcome of improvement condition IC26	To be agreed in writing with the Environment Agency, following the outcome of improvement condition IC26



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

<b>Table S2.1 Raw materials and fuels</b>	
<b>Raw materials and fuel description</b>	<b>Specification</b>
Gas oil	Not exceeding 0.1% w/w sulphur content

<b>Table S2.2 Permitted waste types for use as fuels</b>	
<b>Waste code / EWC Code</b>	<b>Description</b>
Relevant exempt biomass waste code	Biomass fuels exempt from the requirements of the Waste Incineration Directive and Large Combustion Plant Directive (as defined in Article 2(11) of EU Directive 2001/80/EC and Article 2 of EU Directive 2000/76/EC) and included in the application or otherwise approved in writing by the Environment Agency
Relevant exempt waste code	Other fuels exempt from the requirements of the Waste Incineration Directive 2000/76/EC and included in the application or otherwise approved in writing by the Environment Agency.

<b>Table S2.3 Permitted waste types for ash processing</b>	
<b>Waste code</b>	<b>Description</b>
10 01 01	Bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 03	Fly ash from peat and untreated wood

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air from biomass fired boilers >100MWth operating under the Transitional National Plan. Applicable until the plant is fully commissioned on biomass.						
Emission point ref. & location	Parameter	Source	Limit (including unit)- these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP 418 Boiler plant fired on biomass	450mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP 418 Boiler plant fired on biomass	550mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Sulphur Dioxide	LCP 418 Boiler plant fired on biomass	350mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Sulphur Dioxide	LCP 418 Boiler plant fired on biomass	440mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Dust	LCP 418 Boiler plant fired on biomass	35mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Dust	LCP 418 Boiler plant fired on biomass	42mg/m <sup>3</sup>	95% of validated daily means within a calendar year	Continuous	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Oxygen	LCP 418 Boiler plant fired on biomass	-	-	Continuous As appropriate to reference	BS EN 14181
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Water Vapour	LCP 418 Boiler plant fired on biomass	-	-	Continuous As appropriate to reference	BS EN 14181

<b>Table S3.1 Point source emissions to air from biomass fired boilers &gt;100MWth operating under the Transitional National Plan. Applicable until the plant is fully commissioned on biomass.</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit)- these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Stack gas temperature	LCP 418 Boiler plant fired on biomass	-	-	Continuous As appropriate to reference	Traceable to national standards
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Stack gas pressure	LCP 418 Boiler plant fired on biomass	-	-	Continuous As appropriate to reference	Traceable to national standards
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	Stack gas volume flow	LCP 418 Boiler plant fired on biomass	-	-	Continuous	BS EN 16911 & TGN M2
AU1, AU2, AU3 [Points A1, A2, A3 on site plan A1/420/140]	As required by the Method Implementation Document for BS EN 15259	LCP 418 Boiler plant fired on biomass	-	-	Pre-operation and when there is a significant operational change	BS EN 15259

<b>Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 shown on site plan A1/420/140	-	Sewage treatment plant	No limit set	-	-	-
W2 shown on site plan A1/420/140	-	De-asher	No limit set	-	-	-
W3 shown on site plan A1/420/140	-	Cooling water	No limit set	-	-	-

<b>Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W4 sampling final outfall shown on drawing A1-420-141 Rev B received 17/08/06	Metals, ammonia, suspended solids, cyanide (free), COD.	Final outfall sample point, including effluent from new package waste water treatment plant from biomass construction village	No limit set	-	Quarterly	-
W6 surface water drain identified in drawing A1/420/142 RVB in application KP3935GM	-	Surface water drain from coal stocking area	No limit set	-	-	-

<b>Table S3.3 Annual limits (excluding start up and shut down except where otherwise stated).</b>				
<b>Substance</b>	<b>Medium</b>	<b>Limit (including unit)</b>		<b>Emission Points</b>
Dust, sulphur dioxide and oxides of nitrogen	Air	Assessment year	LCP TNP Limit	LCP 418
		01/01/16 and subsequent years until 31/12/19	Emission allowance figure shown in the TNP Register as at 30 April the following year	
		01/01/20-30/06/20		

## 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>
Oxides of nitrogen	AU1, AU2 and AU3	Every 3 months	1 January, 1 April, 1 July, 1 October
Sulphur dioxide	AU1, AU2 and AU3	Every 3 months	1 January, 1 April, 1 July, 1 October
Dust	AU1, AU2 and AU3	Every 3 months	1 January, 1 April, 1 July, 1 October
Emissions to Water Parameters as required by condition 3.5.1	W1	Every 6 months	1 January, 1 July

<b>Table S4.2: Resource Efficiency Metrics</b>	
<b>Parameter</b>	<b>Units</b>
Electricity Exported	GWhr
Heat Exported	GWhr
Mechanical Power Provided	GWhr
Fossil Fuel Energy Consumption	GWhr
Non-Fossil Fuel Energy Consumption	GWhr
Annual Operating Hours	hr
Water Abstracted from Fresh Water Source	m <sup>3</sup>
Water Abstracted from Borehole Source	m <sup>3</sup>
Water Abstracted from Estuarine Water Source	m <sup>3</sup>
Water Abstracted from Sea Water Source	m <sup>3</sup>
Water Abstracted from Mains Water Source	m <sup>3</sup>
Gross Total Water Used	m <sup>3</sup>
Net Water Used	m <sup>3</sup>
Hazardous Waste Transferred for Disposal at another installation	t
Hazardous Waste Transferred for Recovery at another installation	t
Non-Hazardous Waste Transferred for Disposal at another installation	t
Non-Hazardous Waste Transferred for Recovery at another installation	t
Waste recovered to Quality Protocol Specification and transferred off-site	t
Waste transferred directly off-site for use under an exemption / position statement	t

<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Thermal Input Capacity for LCP 418	Annually	MW
Annual Fuel Usage for LCP 418	Annually	TJ
Total Emissions to Air of NO <sub>x</sub> for LCP 418	Annually	t
Total Emissions to Air of SO <sub>2</sub> for LCP 418	Annually	t
Total Emissions to Air of dust for LCP 418	Annually	t
Operating Hours for LCP 418	Annually	hr

<b>Media/ parameter</b>	<b>Reporting format</b>	<b>Starting Point</b>	<b>Agency recipient</b>	<b>Date of form</b>
Air & Energy	Form IED AR1 - SO <sub>2</sub> , NO <sub>x</sub> and dust mass emission and energy	01/01/16	National	31/12/15
Air	Form IED RTA1 - TNP quarterly emissions summary log	01/01/16	National	31/12/15
LCP	Form IED HR1 - operating hours	01/01/16	National	31/12/15
Air	Form IED CON 1 - continuous monitoring	01/01/16	Area Office	31/12/15
CEMs	Form IED CEM - invalidation Log	01/01/16	Area Office	31/12/15
LCP	Form IED BD1 - cumulative annual rolling malfunction and breakdown hours	01/01/16	Area Office	31/12/15
Air	Form IED MF1 – pollutant concentrations during any day with malfunction or breakdown of abatement plant	01/01/16	Area Office	31/12/15
Resource Efficiency	Form REM1 - resource efficiency annual report	01/01/16	National	31/12/15
Water	Form water 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	08/09/10

# 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	EPR/FP3137CG
Name of operator	Lynemouth Power Limited
Location of Facility	Lynemouth Power Station, Ashington, Northumberland
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	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

<b>(c) 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.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator



## Part C Malfunction or Breakdown of LCP abatement equipment

Permit Number	EPR/FP3137CG
Name of operator	Lynemouth Power Limited.
Location of Facility	Lynemouth Power Station, Ashington, Northumberland.
LCP Number	LCP 418
Malfunction or breakdown	
Date of malfunction or breakdown	

<b>(a) Notification requirements for any malfunction and breakdown of abatement equipment as defined by the Industrial Emission Directive*.</b>	
<b>To be notified within 48 hours of abatement equipment malfunction and breakdown</b>	
Time at which malfunction or breakdown commenced	
Time at which malfunction or breakdown ceased	
Duration of the breakdown event in hours and minutes	
Reasons for malfunction or breakdown	
Where the abatement plant has failed, give the hourly average concentration of all measured pollutants.	
Cumulative breakdown operation in current year (at end of present event)	
Cumulative malfunction operation in current year (at end of present event)	
<b>Name**</b>	
<b>Post</b>	
<b>Signature **</b>	
<b>Date</b>	

\* See section 3.6 and Appendix E of ESI Compliance Protocol for guidance

\*\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

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

“Air Quality Risk Assessment” has the meaning given in Annex D of IED Compliance Protocol for Utility Boilers and Gas Turbines.

“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.

“biomass” means:

(a) vegetable matter from agriculture and forestry;

(b) vegetable waste from the food processing industry, if the heat generated is recovered;

(c) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and the heat generated is recovered;

(d) cork waste; and

(e) wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating, and which includes in particular such wood waste originating from construction and demolition waste.

“base load” means: (i) as a mode of operation, operating for >4000hrs pa; and (ii) as a load, the maximum load under ISO conditions that can be sustained continuously, i.e. maximum continuous rating.

“breakdown” has the meaning given in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

“calendar monthly mean” means the value across a calendar month of all validated hourly means.

“CEN” means Comité Européen de Normalisation.

“Combustion Technical Guidance Note” means IPPC Sector Guidance Note Combustion Activities, version 2.03 dated 27th July 2005 published by Environment Agency.

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“DLN” means dry, low NO<sub>x</sub> burners.

“emissions to land” includes emissions to groundwater.

“Energy efficiency” the annual net plant energy efficiency means the value calculated from the operational data collected over the year.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 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.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“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, as amended from time to time.

“large combustion plant” or “LCP” is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MW or more, based on net calorific value. The calculation of thermal input, excludes individual combustion plants with a rated thermal input below 15MW.

“low polluting fuels” means biomass or coal with an average as-received sulphur content of less than 0.4% by mass as described in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

“malfunction” has the meaning given in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

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

“MCR” means maximum continuous rating.

“MSDL” means minimum shut-down load as defined in Implementing Decision 2012/249/EU.

“MSUL” means minimum start-up load as defined in Implementing Decision 2012/249/EU.

“Natural gas” means naturally occurring methane with no more than 20% by volume of inert or other constituents.

“ncv” means net calorific value.

“operational hours” are whole hours commencing from the first unit ending start up and ending when the last unit commences shut down.

Pests” means Birds, Vermin and Insects.

“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 Directive 2008/98/EC of the European Parliament and of the Council on waste.

“SI” means site inspector.

“Standby fuel” means alternative liquid fuels that are used in emergency situations when the gas fuel which is normally used, is not available.

“TNP Register” means the register maintained by the Environment Agency in accordance with regulation 4 of the Large Combustion Plants (Transitional National Plan) Regulations 2015 SI2015 No.1973.

“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.

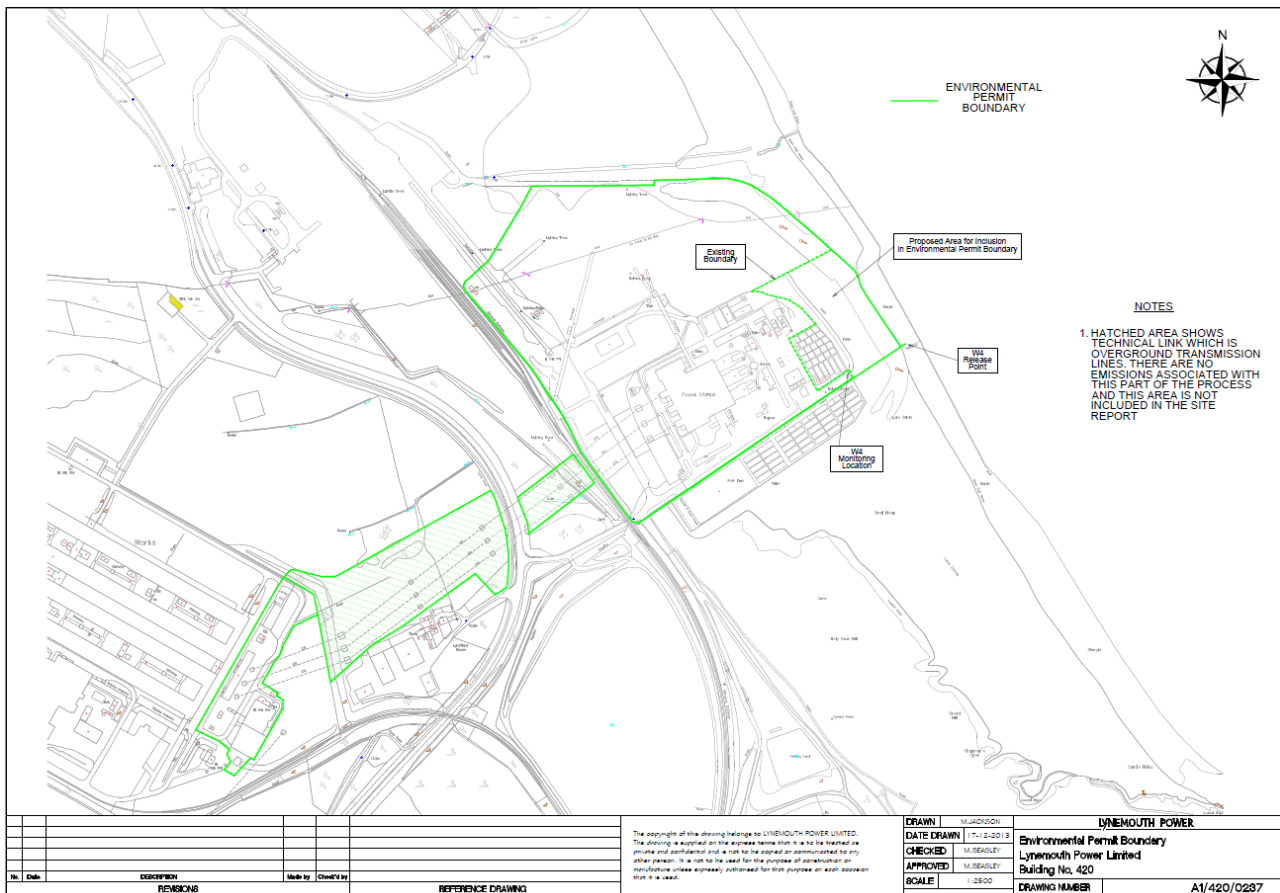
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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 turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or
- in relation to emissions from combustion processes comprising a gas turbine with a waste heat boiler, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry, unless the waste heat boiler is operating alone, in which case, with an oxygen content of 3% 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



END OF PERMIT