



# **Notice of variation and consolidation with introductory note**

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

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Cofely Industrial Energy Services Limited

Grimsby Fibres Power Station  
PO Box 24  
Great Coates  
Grimsby  
N E Lincolnshire  
DN31 2SS

### **Variation application number**

EPR/AP3238ZU/V003

### **Permit number**

EPR/AP3238ZU

# Grimsby Fibres Power Station

## Permit number EPR/AP3238ZU

### 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).

The consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. It also modernises the entire permit to reflect the conditions in our current generic permit template.

This Variation introduces the following changes:

- The operator has reviewed the activities at the installation and due to a lowering of the thermal input of the remaining plant, the site is no longer considered to include any large combustion plant (LCP). This variation notice removes the LCP elements.
- The LCP references removed are: LCP 62, LCP 63 and LCP 96.
- Emission points A2 and A6 are removed.
- Table S3.2 has been amended to include additional parameters and limits for emission point W1.

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

#### Permit

Grimsby Fibres Power Station shares the site with 3 other installations and provides site services of electricity and steam to these installations.

The installation is located on the South Humberside Industrial Estate, located at Great Coates approximately 2km west of the outskirts of Grimsby, and approximately 500m of the Humber Estuary, designated as a Site of Special Scientific Interest (SSSI), and within 500m of a combined SPA/RAMSAR/SSSI area designated as Humber flats, Marshes and Coast, phase 1 (Pyewipe and Cleethorpes Coast).

The installation is operated by Cofely Industrial Energy Services Limited, having formally been run as part of a combined site operation under originally Courtaulds Ltd, then Acordis UK Limited, then Fibres-Worldwide and now Blue Star Fibres Limited.

The main activity of the installation is the production of electricity and steam in a number of boilers and turbines. The total aggregated thermal input for the installation is 84.4 MWth. However, each individual unit has a thermal input less than 50 MWth (net). Water cooling is provided by a single 3 cell tower.

The main releases from the activity are air emissions related to combustion of natural gas and releases to water from the steam generator boiler blow down and boiler feed water treatment. Emissions to air are oxides of nitrogen, oxides of carbon, sulphur dioxide and dust. The plant receives a supply of raw water from an external supplier, which is treated and "polished" at the plant by passing through a mixed bed ion exchange system. Regeneration of this ion exchange system is carried out using sulphuric acid and caustic soda solution, to produce demineralised boiler feed water.

Emission point A1; 61m high stack which vents two gas-fired GT/HRSG. Aggregating these units results in a total thermal input of 48 MWth.

Emission point A2; is no longer required.

Emission point A3; 47m high stack which vents two gas-fired package boilers each of 16.1 MWth. Aggregating these units results in a total thermal input of 32.2 MWth.

Emission points A4 and A5; are the bypass stacks fitted to the gas turbines. These operate for less than 500 hours per year.

Emission points A6 and A7; refer to cooling tower units that have now been replaced with a single three cell tower. Emission point A6 has been replaced by A7 and is no longer required.

Emission point A8; 10m high stack which vents a gas engine/ waste heat recovery boiler, whose thermal input is 4.592 MWth.

Emission point W1; carries the site discharge to controlled waters. All waste water and surface water enters the installation waste water system and is treated before discharge to the River Humber. Waters discharged to this system are mainly HRSG blow-down, water containing boiler treatment chemicals, and water from the regeneration of the ion exchange beds.

Cofely Industrial Energy Services Limited has an Environmental Management System externally accredited to ISO 14001, which is also regularly internally audited as per the ISO 14001 standard.

There is no history of noise or odour complaints about this installation.

A summary of the previous changes to the permit are as follows:

#### Variation EP3835LB/V002

- This variation implemented the requirements of the National Emission Reduction Plan as set out in the Large Combustion Plants (National Emissions Reduction Plan) Regulations 2007 and the Pollution Prevention and Control (Combustion Plants) (England) Directions 2007.

#### Permit transfer from EP3835LB to AP3238ZU

- The permit, EPR/EP3835LB, was transferred from Humber Energy Limited to Cofely Industrial Energy Services Limited. The new permit number is EPR/AP3238ZU. The transfer was required because the contract for the operation and maintenance of the CHP facility was awarded to new operator. Cofely Industrial Energy Services Limited. The existing site management system remained in place until integration into Cofely's system.

#### Variation AP3238ZU/V002

- This variation authorised the changes to the permit following the replacement of the two existing boilers No's 8 and 9 (located at emission point A3), with two new 16.1MWth gas fired package boilers. The replacement boilers are of a modern design with low oxides of nitrogen burners. Furthermore, the boilers have a higher thermal efficiency and are equipped with flue gas economisers. The replacement boilers emit through the current emission point A3 stack and require annual monitoring for nitrogen oxide (NO<sub>2</sub>) and carbon monoxide (CO).
- In addition, a spark ignition gas engine combined heat and power (CHP) was installed. The engine has a maximum capacity of 2MW (4.6MWth) and emits through a new 10m height stack at emission point A8.
- Heavy fuel oils (HFO) are no longer used on site so references to this have been removed following this variation. As HFO has been removed from site and the boilers are now gas fired only – the limits, monitoring and reporting requirements for sulphur dioxide (SO<sub>2</sub>) and particulates have subsequently been removed. CO and NO<sub>2</sub> monitoring frequencies have been reduced. Emission point A1 to 6 monthly and emission point A3 to annually.
- The existing permit did not include control of the sites discharge effluent. Therefore, this variation requires the implementation of a monitoring programme in order to characterise the process effluent and develop a suitable effluent treatment facility. End of variation description.

This consolidated variation incorporates the changes required by the Industrial Emissions Directive. This includes the amendment of the wording of several permit conditions.

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 received EP3835LB	Duly made 07/04/2006	
Additional information received	28/07/2006	
Additional information received	24/08/2006	
Permit determined EP3835LB (PAS Billing ref. EP3835LB)	14/06/2007	Original permit issued to Humber Energy Limited.
Variation application LP3339XA	28/11/2007	
Variation issued LP3339XA	17/12/2007	Varied permit issued to Humber Energy Limited.
Transfer application EPR/AP3238ZU/T001 (full transfer of permit EP3835LB)	Duly made 19/12/2012	Application to transfer the permit in full to Cofely Industrial Energy Services Ltd.
Transfer issued EPR/AP3238ZU/T001	15/01/2013	Full transfer of permit complete.
Application EPR/AP3238ZU/V002 (variation and consolidation)	Duly made 26/06/2013	Application to vary emission point A3 and include a new spark ignition engine CHP plant and update the permit to modern conditions to include the requirements of IED.
Additional information received	12/12/2013	Location of current discharge point where it leaves the site boundary.
Variation determined EPR/AP3238ZU/V002	03/02/2014	Variation and consolidation notice issued in modern condition format.
Regulation 60 Notice sent to the Operator	17/12/14	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. However, following this review, this plant is no longer a Chapter III LCP and the variation reflects this. The permit is also updated to modern conditions
Regulation 60 Notice response	24/04/15	Response received from the Operator.
Additional information received	27/07/15	Response to request for further information (RFI) dated 08/06/15.
Variation determined EPR/AP3238ZU/V003 (PAS Billing ref: UP3534AJ)	22/12/15	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.

<b>Other Part A installation permits relating to this installation</b>		
<b>Operator</b>	<b>Permit number</b>	<b>Date of issue</b>
Technical Absorbents Limited	RP3632NX	30/11/06
Blue Star Fibres Company Limited	VP3335LK	23/03/07
Lenzing Fibers Grimsby Limited	SP3936HE	21/11/06

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/AP3238ZU**

### Issued to

**Cofely Industrial Energy Services Limited** ("the operator")

whose registered office is

**Shared Services Centre Q3 Office  
Quorum business Park  
Benton Lane  
Newcastle Upon Tyne  
NE12 8EX**

company registration number 01732859

to operate an installation at

**Grimsby Fibres Power Station  
PO Box 24  
Great Coates  
Grimsby  
N E Lincolnshire  
DN31 2SS**

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

<b>Name</b>	<b>Date</b>
<b>Rebecca Warren</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/AP3238ZU**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/AP3238ZU/V003 authorising,

**Cofely Industrial Energy Services Limited** (“the operator”),

whose registered office is

**Shared Services Centre Q3 Office  
Quorum business Park  
Benton Lane  
Newcastle Upon Tyne  
NE12 8EX**

company registration number 01732859

to operate an installation at

**Grimsby Fibres Power Station  
PO Box 24  
Great Coates  
Grimsby  
N E Lincolnshire  
DN31 2SS**

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

<b>Name</b>	<b>Date</b>
<b>Rebecca Warren</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.

## **1.5 Multiple operator installations**

- 1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

## **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 that represents the extent of the installation covered by 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 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 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.

## **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 point(s) A1, and A3 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 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 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 tables S3.1 and S3.2 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.

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.

### 4.3 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 [(a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, 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.

## **4.4 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 "without delay", 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.	Production of combined heat and power in 2 x gas fired GT/HRSGs with a total input of 48MWth, 2 x gas fired package boilers with a total input of 32.2MWth and a gas engine/HRSG with a total input of 4.592MWth.	From use of fuel, through the plant producing electricity to the discharge of combustion products to air.
<b>Directly Associated Activity</b>			
A2	Surface water drainage	Surface water and process effluent drainage to the River Humber.	Handling and storage of site drainage until discharge into the River Humber
A3	Operation of two steam turbine (ST5 and ST6).	Operation of one 20MWth and one 45MWth steam turbines.	From input of steam to dispatch of electricity and waste.
A4	Water treatment	Filtration/ion exchange water treatment.	From receipt of mains water and raw materials to dispatch of treated water for use in the process.
A5	Waste storage	Waste handling and storage.	From production of waste to dispatch for disposal off-site.
A6	Miscellaneous utilities	Miscellaneous utility systems (including lubrication systems, control systems, oil storage).	From receipt of raw material to dispatch for use.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application EP3835LB	The response to Section 2.1, excluding 2.1.3 and 2.1.5, and 2.2 in the application.	07/04/06
Variation application EPR/AP3238ZU/V002	Responses to Part C2 and C3 of the application form and referenced supporting documentation.	26/06/13
Additional information received	Location of current discharge point where it leaves the site boundary.	12/12/13

<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. requested by letter dated 08/06/15	<p>On receipt of this additional information the Operator informed the Environment Agency of its intention to de-rate the supplementary firing of the HRSG's and decommission surplus equipment including boilers. The plant remains subject to Chapter II of IED because the aggregated net thermal input of the plant is greater than 50MWth net and no individual unit is greater than 50MWth net.</p> <p>The Operator confirmed that this combustion plant will be gas fired only.</p>	Received 27/07/15

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC1	<p>The Operator shall implement a maintenance and inspection programme for hardstanding, drains, bunds and other pollution protection measures with regard to the requirements of Section 2.2.9 of TGN "Combustion Activities", dated 27/07/05.</p> <p>A written report shall be submitted to the Environment Agency detailing the procedures implemented and confirming their incorporation into the management and training systems of the installation.</p>	Complete
IC2	<p>A written plan shall be submitted to the Environment Agency detailing the results of an assessment to identify the best environmental option for the disposal of waste from the installation. Where appropriate, the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The Operator shall implement the proposals as agreed in writing with the Environment Agency.</p>	Complete
IC3	<p>The Operator shall carry out a water efficiency audit as identified in the application for IPPC permit, with regard to the requirements set out in Section 2.4.3 of TGN "Combustion Activities" dated 27/07/05. A written report detailing the methodology used together with proposals for a time-tabled plan for implementing water reduction shall be submitted to the Environment Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on written approval of the report being received from the Environment Agency.</p>	Complete
IC4	<p>The Operator shall submit a report to the Environment Agency giving details of either a justification of how the continuous monitoring methods for gas turbine monitoring for nitrogen dioxide and carbon monoxide satisfy the requirements of MCERTS, or identifying appropriate MCERTS monitoring equipment with a time-tabled plan for installation and commissioning.</p> <p>The Operator shall implement any proposals as agreed in writing with the Environment Agency.</p>	Complete



<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC5	<p>The Operator shall determine appropriate monitoring methods for the monitoring of carbon dioxide, sulphur dioxide and particulates with reference to Environment Agency Guidance Note M2.</p> <p>This shall ensure that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation unless otherwise agreed in writing in accordance with condition 3.6.3.</p> <p>A written report shall be submitted to the Environment Agency giving details of the proposed methods which shall be implemented by written agreement from the Environment Agency.</p>	Complete
IC6	<p>A written plan shall be submitted to the Agency detailing the results of an assessment to identify the BAT options to replace Heavy Fuel Oil. Where appropriate, the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The Operator shall implement the proposals as agreed in writing with the Environment Agency.</p>	Complete
IC7	<p>The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of TGN "Combustion Activities", dated 27/07/05.</p> <p>Upon completion of the plan, a summary of the document shall be submitted to the Environment Agency in writing.</p>	Complete
IC8	<p>A written plan shall be submitted to the Environment Agency for approval detailing the results of a survey of drainage and underground storage tanks throughout the installation and the measures to comply with the requirements of Section 2.2.9 of TGN "Combustion Activities", dated 27/07/05. In particular, this shall consider the integrity of underground drains and water recirculation pipe-work. Where appropriate the plan shall contain dates for the implementation of individual measures. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the plan.</p> <p>The plan shall be implemented by the Operator from the date of approval by the Environment Agency.</p>	Complete
IC9	<p>The Operator shall develop and implement a monitoring programme for the process effluent currently released to Blue Star Fibres Company Limited in order to characterise the current effluent and develop a suitable effluent treatment facility for the process effluent. The assessment will take into account the requirements set in Section 3.1 of the Environment Agency's Sector Guidance Note for the Combustion Sector (EPR 1.01). The Operator shall provide the Environment Agency with a written report summarising the findings and identified improvements shall be implemented to a timetable agreed with the Environment Agency.</p> <p>The Environment Agency shall use the collected monitoring data to set ELV's for effluent parameters where it is deemed to be appropriate.</p>	Complete
IC10	<p>For combustion plant (previously referenced LCP62, LCP63 and LCP96), 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 LPCD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry</p>	31/01/16

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

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Natural gas	-

## Schedule 3 – Emissions and monitoring

<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source<sup>2</sup></b>	<b>Limit<sup>1</sup> (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>
A1 [Point A1 on the plan in Schedule 7]	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	Gas turbines 1 and 2 and associated waste heat boilers.	150 mg/m <sup>3</sup>	Daily mean of validated hourly averages.	Continuous	BS EN 14181
	Carbon monoxide		30 mg/m <sup>3</sup>	Daily mean of validated hourly averages.		
A3 [Point A3 on the plan in Schedule 7]	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	2 x 17.5MWth gas fired boilers	150 mg/m <sup>3</sup>	Hourly averages.	Annually	BS EN 14792
	Carbon monoxide		30 mg/m <sup>3</sup>	Hourly averages.		
A1 & A3 [Points A1 & A3 on the plan in Schedule 7]	As required by the Method Implementation Document for BS EN 15259	Gas turbines 1 and 2 and associated waste heat boilers and 2 x 17.5MWth gas fired boilers	-	-	Pre-operation and when there is a significant operational change	BS EN 15259
A4 [Point A4 on the plan in Schedule 7]	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	CHP plant GT No.1 by-pass	Limited to less than 500 hours per annum	N/A	N/A	Permanent sampling access not required
	Carbon monoxide					
A5 [Point A5 on the plan in Schedule 7]	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	CHP plant GT No.2 by-pass	Limited to less than 500 hours per annum	N/A	N/A	Permanent sampling access not required
	Carbon monoxide					

**Table S3.1 Point source emissions to air – emission limits and monitoring requirements for IED Chapter II Plant aggregate  $\geq 50 < 100$  MWth net.**

Emission point ref. & location	Parameter	Source <sup>2</sup>	Limit <sup>1</sup> (including unit)-these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A7 [Point A7 on the plan in Schedule 7]	Water vapour	3 cell cooling tower	No limit is set	N/A	N/A	Permanent sampling access not required
A8 [Point A8 on the plan in Schedule 7]	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	Gas engine/HRSG	No limit is set	N/A	N/A	Permanent sampling access not required
	Carbon monoxide		No limit is set	N/A	N/A	Permanent sampling access not required

1. Limit applies to all units firing Natural Gas only. No other fuels are permitted.
2. Monitoring and limit applies to the sampling point referenced in application EP3835LB (section 2.10 and drawing 37024). For the gas turbines and associated HRSG this is sampling point E1.

**Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements**

Emission point ref. & location	Parameter	Source	Limit (incl. unit) <sup>1</sup>	Reference period	Monitoring frequency	Monitoring standard or method
W1 (point W1 on site plan in Schedule 7) Discharge to the River Humber.	Total suspended solids	Boiler blowdown.	80mg/l	24-hour flow proportional sample	Daily	BS6068-2.54 1995
	pH	Water treatment plant effluent.	5-9	Instantaneous	Continuous	BS6068-2.50 1995
	Temperature		30°C	Instantaneous	Continuous	BSEN13500
	Hourly flow		210m <sup>3</sup> /hr	Hourly	Continuous	MCERTS
	Total oxidant (as chlorine)	Surface waters	0.50mg/l	24 hr period beginning 00.01	Continuous	SCA Blue Book 51 ISBN0117516260
	Oil and grease		No visible emission	24 hr flow proportional sample	Daily	Visual inspection

<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)<sup>1</sup></b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
	COD		1000mg/l	24 hr composite	No less than once per week	ASTM 1995 standard method for chemical oxygen demand of water D1252-95 ASTM Annual Book of Standards
<p>Note 1. These limits shall take effect from 01 January 2017 or from the date of commissioning of the new effluent treatment plant as identified in the operator's response to IC9.</p>						

## Schedule 4 – Reporting

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

<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Oxides of nitrogen Parameters as required by condition 3.5.1	A1, A3	Every 6 months	1 January, 1 July
Carbon monoxide Parameters as required by condition 3.5.1	A1, A3	Every 6 months	1 January, 1 July
Discharge water monitoring Parameters as required by condition 3.5.1	W1	Every 6 months	1 January, 1 July
CEMS invalidation log	A1	Every 6 months	1 January, 1 July

<b>Parameter</b>	<b>Units</b>
Electricity Exported	GWHrs
Heat Exported	GWHrs
Mechanical Power Provided	GWHrs
Fossil Fuel Energy Consumption	GWHrs
Non-Fossil Fuel Energy Consumption	GWHrs
Annual Operating Hours	Hrs
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>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Thermal Input Capacity for each Combustion Unit	Annually	MW
Annual Fuel Usage for each Combustion Unit	Annually	TJ
Total Emissions to Air of NO <sub>x</sub> for each Combustion Unit	Annually	T
Total Emissions to Air of CO for each Combustion Unit	Annually	T
Operating hours (A4, A5)	Annually	Hours

<b>Table S4.4 Reporting forms</b>				
<b>Media/ parameter</b>	<b>Reporting format</b>	<b>Starting Point</b>	<b>Agency recipient</b>	<b>Date of form</b>
	Form IED HR1 – operating hours	01/01/16	Area Office	31/12/15
Air	Form IED AR1 – NO <sub>x</sub> and CO mass emission and energy.	01/01/16	Area Office	31/12/15
Air	Form IED PM1 - discontinuous monitoring for NO <sub>x</sub> , CO and load.	01/01/16	Area Office	31/12/15
Air	Form IED CON2 – CEMS reporting for GTs only	01/01/16	Area Office	31/12/15
Air	Form IED CEM1 invalidation log	01/01/16	Area Office	31/12/15
Water	Form Water 1 or other form as agreed in writing by the Environment Agency	01/01/16	Area Office	31/12/15
Resource Efficiency	Form REM1 – resource efficiency annual report	01/01/16	Area Office	31/12/15

# 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	
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



## 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

“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.

“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.

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

“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.

“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.

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

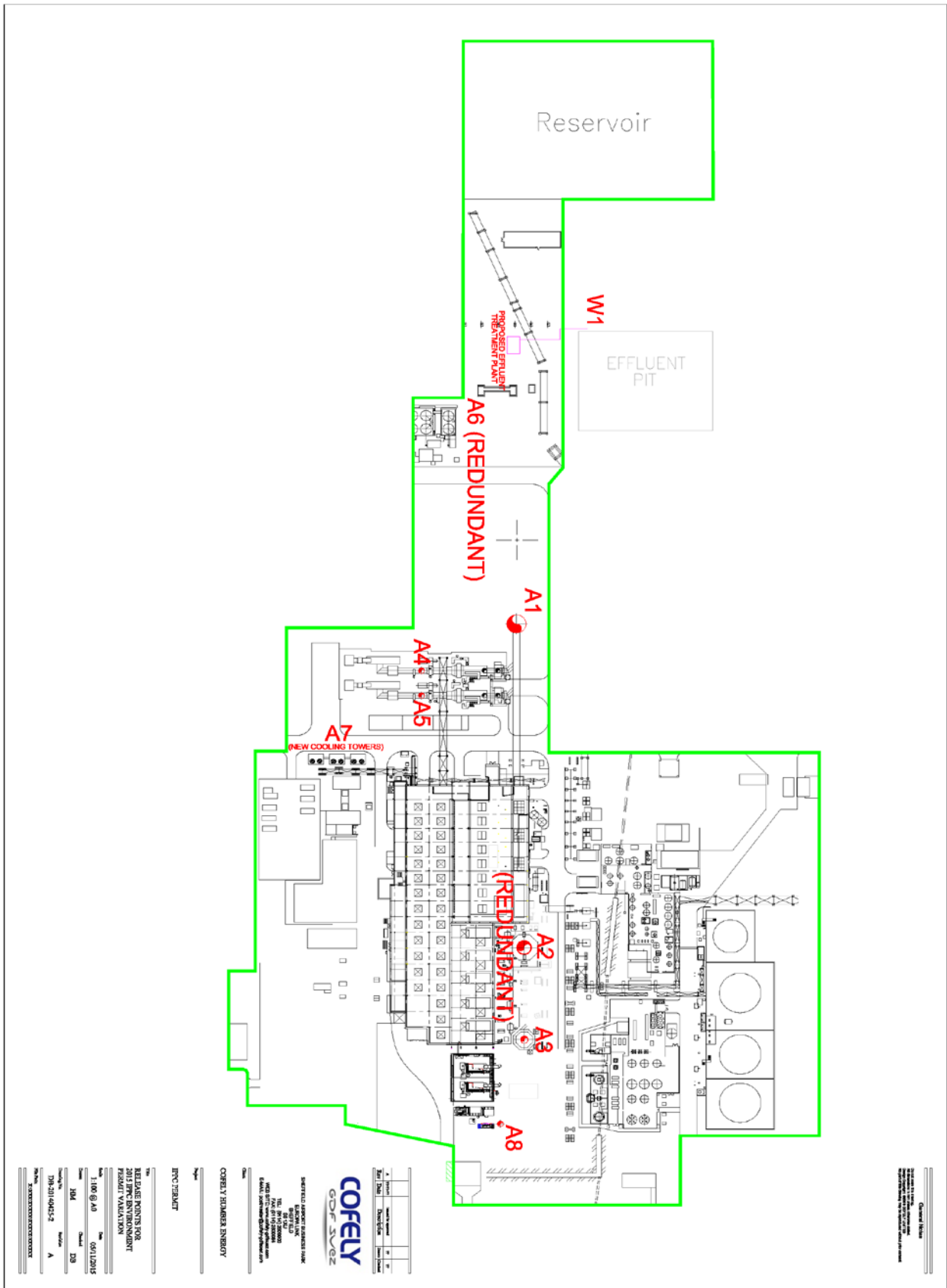
in relation to emissions from gas turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or

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

