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Date: 30th January 2019

Dear Chloe,

Permit Number: NP3838LV

Reference: Annual IPPC Report for Wilton Biomass Power Station

The following annual information is submitted under the requirement of Section 4.2 of our EPR permit.

Yours sincerely

A handwritten signature in black ink, appearing to read "Jenny Thomas".

Jenny Thomas

Environmental Technical Manager
SembCorp Utilities UK Limited

2018 Annual Report
SembCorp Utilities UK Limited
Wilton Biomass Power Station
Permit Number: NP3838LV

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1. Summary of Monitoring Results

1.1 Emissions to Air

1.1.1 Continuous Monitoring

See attached six monthly reporting of emissions to air (Appendix 1 – Pg 5 & 6 and Pg 8 & 9).

1.1.2 Manual Extractive Monitoring

Table S4.1 in the EPR permit identifies all manual extractive emissions monitoring required on a bi-annual basis during 2018. This sampling and analysis was carried out by an MCERTS certified organisation.

Results relating to manual extractive monitoring can be found in the attached six monthly reporting of emissions to air (Appendix 1 – Pg 5 & 6 and Pg 8 & 9).

1.1.3 Ash Residues

Table S4.8 of the EPR permit requires quarterly analysis of bottom ash and air pollution control residues for a range of analytes. During 2018 this was carried out by Marchwood Scientific Services and undertaken to the requirements of ISO17025.

Results relating to this analysis can be found in the attached reporting of ash composition (Appendix 1 – Pg 7 & 10).

1.2 Emissions to Sewer

Table S4.3 requires the monitoring of the S3 sewer discharge on a weekly basis for visible oil and grease.

Weekly samples from S3 were submitted to Sembcorp Analytical Services who are accredited to ISO9001:2015 for this service.

See attached reporting of emissions to sewer (Appendix 1 – Pg 11).

1.3 Noise Monitoring

Table S4.6 of the EPR permit requires noise monitoring on a quarterly basis for measurement points as agreed with the competent authority.

The noise monitoring shown in Table 1.3 was undertaken to the requirements of BS 4142:1997 by Sembcorp Analytical Services who are accredited to ISO9001:2015 for this service.

Note that the noise report from the analytical labs states that the noise assessment to the Gated Entrance (Sub Station Rd) and Main Entrance Whitby Building are stated as not longer required.

Table 1.3 – Noise Monitoring 2018

Monitoring Location	14/03/18 (dBA)	19/06/18 (dBA)	13/09/17 (dBA)	16/11/17 (dBA)
Wilton 10 Main Stack	73	73	73	75
Sorter/metal extraction unit	70	72	70	71
Entrance to fuel handling area	65	64	65	66
Exit from fuel handling area	71	64	62	68
Chipper	65	66	60	70
Construction entrance	70	65	73	71
Gated entrance (Sub station Rd)	70	66	N/A	N/A
Main entrance Whitby Building	63	61	N/A	N/A

2. Assessment of impact of emissions submitted with application

2.1 EMISSIONS TO AIR

Emissions to air from the Wilton 10 Power Station occur from A4 stack.

At the time of application Sembcorp identified peak concentrations which were used to undertake emissions modelling and impact assessment of the process prior to operation.

The permit application concluded that the emissions impact would be insignificant when calculated with those peak concentrations.

It can be seen from the emissions reports (see pages 5 & 8) that the maximum reported concentrations are below the application peak concentrations and therefore the emissions to air impact in 2018 would be insignificant.

2.2 EMISSIONS TO WATER

Emissions to water from the Wilton 10 Power Station occur through boiler blowdown and cooling water discharges from the power station. Annual emissions to water were not quantified in the EP application, as there was no information available on the composition of the wastewater at the time of the application.

An improvement condition (IC4) was included in the Wilton 10 EP permit, which required an impact assessment of the emissions from Wilton 10 to be carried out, following suitable monitoring of these emissions. This report was submitted in June 2008, and concluded that it is unlikely that this effluent would lead to impacts which could result in exceedences of the EALs in the final receiving water, the River Tees, and therefore no further review of emissions to water has been carried out here.

CAR1 form (NP3838LV 241109C) indicated that the impact assessment submitted in IC4 was satisfactory and that no further action was required in regards to effluent monitoring from points S4 and S5 of the Wilton 10 Biomass Power Station.

Appendix 1, page 11 records that there have been no instances of visible oil/grease from the permitted discharge point S3.

3. Summary of annual improvements targets

There have been no annual improvement targets for 2018.

4. Details of any contamination/decontamination of site

There have been no events during 2018 that could have caused any contamination within the installation boundary.

5. Process Operation Review

When operational Wilton Biomass Power Station has operated at steady performance throughout 2018, The installation was off line during July into early August 2018 as part of a planned maintenance shutdown.

6. Assessment of emissions data against WID.

The table below shows the pollutant peak concentrations and WID emission limit values as displayed in the permit application, also displayed are the peak values obtained during 2018.

Pollutant	Peak Concentration (from application)	WID ELV (from application)	Annual Maximum Concentration
	mg/m ³	mg/m ³	mg/m ³
NO _x (as NO ₂)	300	300	200
SO ₂	155	155	31
Particulates	25	25	3
CO	To be determined	-	118
NH ₃	15	-	1
HCL	24	-	7
HF	2	-	<0.03 ⁽¹⁾
Hg	0.05	0.05	0.001 ⁽¹⁾
Sum (Cd, Tl)	0.05	0.05	0.001 ⁽¹⁾
Sum (Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V)	0.5	0.5	0.081 ⁽¹⁾
Dioxins and Furans	0.1 ng/m ³	0.1 ng/m ³	0.0019 ⁽¹⁾ ng/m ³

⁽¹⁾ Taken from manual extractive analysis.

It can be seen above that each individual annual maximum concentration is below the WID emission limit values.

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Appendix 1

AAE1 Form

Includes the following forms as identified within the permit:

Performance 1

Water Usage 1

Energy 1

Air 1
(January to June 2018)
(July to December 2018)

Ash 1
(January to June 2018)
(July to December 2018)

Sewer 1