Form S4.2 Annual Report for Natural Resources Wales 2018

Severn Power Station Total Power Generated in GWh 2019

Annual Production (As required in Table 4.2 of Permit)	
Parameter	Units
Power Output Unit 10 (LCP 324)	
1,170	**GWh**
Power Output Unit 20 (LCP 325)	
714	**GWh**
Total (LCP324 and LCP325)	
1,884	**GWh**

RELEASES TO AIR

ANNUAL RETURN

OPERATING HOURS

Operator: Siemens **Form: IED HR1**

Location: Severn Power **Version/date: V.11 Mar 2016**

Permit/Variation Number: EPR/HP3737/V005

Year: 2019	**LCP1 (324) (hours)**	**Bypass (hours)**	**LCP2 (325) (hours)**	**Bypass (hours)**	**LCP3 (hours)**	**Bypass (hours)**	**LCP4 (hours)**	**Bypass (hours)**
Annual Operating Hours [(a), (b)]	**3,920**	N/A	**2,470**	N/A	N/A	N/A	N/A	N/A
Cumulative Operating Hours [(c),(d)]		N/A		N/A	N/A	N/A	N/A	N/A
Derogated annual hours [(e)]		N/A		N/A	N/A	N/A	N/A	N/A
Five year rolling average [(f)]		N/A		N/A	N/A	N/A	N/A	N/A

NOTES:

(a) Annual operating hours for every LCP from 1-Jan in calendar year. (For gas turbines with a Bypass stack, include the Bypass stack operating hours during normal operation even though these are reported separately).

(b) For gas turbines with a Bypass stack, report Bypass operating hours from 1-Jan in calendar year, excluding Start-Up and Shut-down, in the adjacent column (labelled Bypass) which may be deleted if not applicable.

(c) Cumulative operating hours from 1-Jan-2016 for LCP subject to a Limited Lifetime Derogation or a 10,000h monitoring derogation. (For gas turbines with a Bypass stack, include the Bypass stack operating hours during normal operation even though these are reported separately).

(d) For gas turbines with a Bypass stack, report Bypass Cumulative operating hours from 1-Jan-2016 if subject to a separate 10,000h monitoring derogation, in the adjacent column (labelled Bypass).

(e) Annual operating hours in calendar year from entry date (in first year as applicable) or from 1-Jan in calendar year, for each 1,500h ELV derogated Unit/LCP only.

(f) Five year running average from entry date for each 1,500h derogated Unit/LCP only.

(g) General note: hours are reported as a decimal number to two decimal places.

Signed on behalf of the Operator by: …….. Nikki Burge

Date of return: 28/01/2020

Form Name

IED AR1

IED Reporting - Energy Usage & Emissions for the year: 2019

Operator:	Siemens
Site Location:	Severn Power
Permit/Variation number:	EPR/HP3737/V005
LCP:	324
LCP Net Rated Thermal Input Capacity (MW):	721

Parameter	TOTAL	By Fuel							
		Coal	Lignite	Peat	Biomass	Other solid fuels	Liquid fuels	Natural gas	Other gases
Annual energy input (TJ)	8,866.19	0	0	0	0	0	0	8,866.19	0
Total Annual SO_2 emission (tonnes)	0.054								
Total Annual NO_x emission (tonnes)	142.57								
Total Annual Dust (PM) emission (tonnes)	0								

Signed on behalf of the Operator: Nikki Burge Date: 28/01/2020

NOTES:

(a) Annual energy input must be reported in TJ to 1 decimal places

(b) Annual emissions to air must be reported to 2 decimal places and exclude start-up and shut-down

(c) All forms must be saved in the format IED AR1—DEFRA IED LCP Number - Inventory Year i.e. IED AR1-XXX-2013

(d) No PDF documents shall be accepted

(e) Upload Forms held on GOV.UK will be accepted other variants of the forms will be automatically rejected which may impact their statutory obligations to report on time

Breakdown of Other solid fuels (if applicable)

Fuel Name	Annual Energy Input (TJ)
N/A	
TOTAL	0

Breakdown of Other gaseous fuels (if applicable)

Fuel Name	Annual Energy Input (TJ)
N/A	
TOTAL	0

Form Name

IED AR1

IED Reporting - Energy Usage & Emissions for the year: 2019

Operator:	Siemens
Site Location:	Severn Power
Permit/Variation number:	EPR/HP3737/V005
LCP:	325
LCP Net Rated Thermal Input Capacity (MW):	721

Parameter	TOTAL	By Fuel							
		Coal	Lignite	Peat	Biomass	Other solid fuels	Liquid fuels	Natural gas	Other gases
Annual energy input (TJ)	5,483.50	0	0	0	0	0	0	5,483.50	0
Total Annual SO_2 emission (tonnes)	0.034								
Total Annual NO_x emission (tonnes)	69.71								
Total Annual Dust (PM) emission (tonnes)	0								

Signed on behalf of the Operator: Nikki Burge Date: 28/01/2020

NOTES:

(a) Annual energy input must be reported in TJ to 1 decimal places

(b) Annual emissions to air must be reported to 2 decimal places and exclude start-up and shut-down

(c) All forms must be saved in the format IED AR1—DEFRA IED LCP Number - Inventory Year i.e. IED AR1-XXX-2013

(d) No PDF documents shall be accepted

(e) Upload Forms held on GOV.UK will be accepted other variants of the forms will be automatically rejected which may impact their statutory obligations to report on time

Breakdown of Other solid fuels (if applicable)

Fuel Name	Annual Energy Input (TJ)
N/A	
TOTAL	0

Breakdown of Other gaseous fuels (if applicable)

Fuel Name	Annual Energy Input (TJ)
N/A	
TOTAL	0

Permit Number: **EPR/HP3737UE** **Operator:** **Siemens plc**

Facility: **Severn Power Station** **Form Number:** **Water1 / 10/03/10**

Reporting of emissions to water (other than to sewer) and land for year commencing January 2019

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
January	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Continuous. Pumps operate when pH is between 6 and 9	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	7.9	pH Probe	01/01/19 11:00	
	W3	pH	No limit set	Monthly spot	7.8	pH Probe	07/01/19 21:39	
February	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Continuous. Pumps operate when pH is between 6 and 9	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	8.5	pH Probe	01/02/19 11:00	
	W3	pH	No limit set	Monthly spot	6.2	pH Probe	08/02/19 16:16	
March	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Continuous. Pumps operate when pH is between 6 and 9	6-9	BS6068-2.50	N/A	
	W2	pH	No limit set	Monthly spot	8.5	pH Probe	01/03/19 11:00	
	W3	pH	No limit set	Monthly spot	6.8	pH Probe	08/03/19 15:44	
April	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	8.4	pH Probe	01/04/19 11:00	

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
	W3	pH	No limit set	Monthly spot	6.1	pH Probe	08/04/19 13:19	
May	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	9.4	pH Probe	01/05/19 11:00	
	W3	pH	No limit set	Monthly spot	6.5	pH Probe	08/05/19 13:06	
June	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	9.6	pH Probe	01/06/19 11:00	
	W3	pH	No limit set	Monthly spot	7.2	pH Probe	08/06/19 16:59	
July	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	7.3	pH Probe	01/07/19 11:00	
	W3	pH	No limit set	Monthly spot	6.9	pH Probe	08/07/19 14:56	
August	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	8.3	pH Probe	01/08/19 11:00	
	W3	pH	No limit set	Monthly spot	6.1	pH Probe	09/08/19 02:39	
September	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	BS6068-2.50	N/A	

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
	W2	pH	No limit set	Monthly spot	7.2	pH Probe	01/09/19 11:00	
	W3	pH	No limit set	Monthly spot	7.1	pH Probe	08/09/19 16:18	
October	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	7.6	pH Probe	01/10/19 11:00	
	W3	pH	No limit set	Monthly spot	6.8	pH Probe	07/10/19 14:42	
November	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	8.1	pH Probe	01/11/19 11:00	
	W3	pH	No limit set	Monthly spot	6.8	pH Probe	09/11/19 01:34	
December	W1	Total ammonia	No limit set	Monthly spot	Tankered away from site	BS EN ISO 11732:2005	N/A	
	W1	pH	6-9	Constant (pumps operate only when pH is 6 to 9)	6-9	pH Probe	N/A	
	W2	pH	No limit set	Monthly spot	7.7	pH Probe	01/12/19 11:00	
	W3	pH	No limit set	Monthly spot	6.9	pH Probe	08/12/19 14:28	

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed …Nikki Burge…… …… Date 28 January 2020

(Authorised to sign as representative of Operator)