RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS (a),(b),(c)

OPERATING MODE:

Operator: Siemens O&M for Calon Energy

Location: Severn CCGT A1, Unit 10

Permit/Variation Number: EPR/HP3737UE/V005

Form: IED CON2

Version/Date: v 10.0 Dec 2015

Huw Edwards
22 FEB 2017
EHS Manager
Huw Edwards

Year: 2016	LCP 324: UNIT 10							
	NOx (mg/m3)				CO (mg/m3)			
Month	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	Max Hourly Average	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	95% of hourly means
January	24.62	26.98	29.26	29.97	2.16	2.75	5.01	3.1
February	27.40	33.32	36.46	40.28	2.47	4.14	4.14	2.4
March	26.72	32.86	36.11	88.68	2.55	3.72	7.67	2.9
April	26.89	30.46	35.70	67.14	2.80	3.93	5.87	3.0
May	27.75	32.60	32.49	40.25	2.67	3.27	7.77	
June	24.76	29.95	30.98	39.67	2.80	3.36	4.93	5.7
July	25.62	31.56	31.30	40.76	2.96	3.96	6.03	5.9
August	26.63	29.83	29.40	37.31	3.12	5.24	5.92	5.0
September	27.20	31.84	31.59	68.50	3.12	5.01	9.25	4.5
October	22.98	26.71	40.49	60.96	3.09	5.58	22.33	4.5
November	25.55	30.21	30.10	35.21	3.06	4.36	5.43	4.7
December	23.14	28.79	29.07	73.39	2.98	4.33	5.25	3.6
Monthly ELV Daily ELV (f)	50.	50.	50.	100.	100.	110.	110.	N/A
Annual 95th Percentile (g)	33.12	30.83			4.67	3.93		
Annual Percentile ELV (h)	75.				100.			

Compiled: 27/01/17

RELEASES TO AIR

QUARTERLY RETURN

MONTHLY MEAN, MAXIMUM DAILY MEAN AND ANNUAL PERCENTILE CONCENTRATIONS (a),(b),(c)

OPERATING MODE:

Operator: Siemens O&M for Calon Energy

Location: Severn CCGT A2, Unit 20

Permit/Variation Number: EPR/HP3737UE/V005

Form: IED CON2

Version/Date: v 10 9 Dec 2015

Huw Edwards

22 FEB 2017

EHS Manager

Huw Edwards

Year: 2016	LCP 325: UNIT 20							
	NOx (mg/m3)				CO (mg/m3)			
Month	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	Max Hourly Average	Monthly Mean	Max Daily Mean	Part Load Max Daily Mean	95% of hourly means
January	23.99	31.08	29.60	32.20	0.80	1.60	7.18	1.3
February	22.09	28.90	32.51	30.08	1.02	3.44	19.16	2.9
March	20.92	26.02	32.59	30.01	1.17	11.90	14.45	0.8
April	22.28	27.49	31.49	31.78	0.72	1.14	3.06	1.8
May	22.24	26.75	26.50	37.73	0.86	1.43	8.83	-
June	18.95	23.30	23.55	32.06	0.82	2.74	5.71	0.8
July	19.62	22.86	23.26	28.31	0.92	1.56	5.81	2.1
August	19.07	22.30	22.02	48.63	0.99	2.12	9.33	1.4
September	20.95	24.39	25.52	30.81	0.99	1.80	10.00	1.5
October	17.91	21.34	21.51	30.87	1.01	1.95	8.08	4.0
November	19.23	30.59	30.59	30.59	1.03	2.42	20.29	1.4
December	18.48	22.22	25.80	26.68	0.76	2.80	6.93	1.8
Monthly ELV Daily ELV (f)	50.	50.	50.	100.	100.	110.	110.	N/A
Annual 95th Percentile (g)	26.68	25.34			2.15	1.76		
Annual Percentile ELV (h)	75.				100.			

Compiled 27/01/17

Form Name

IED Reporting - Energy Usage & Emissions for the year: 2016

Huw Edwards
22 FEB 2017
EHS Manager
Huw Edwards

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	Liquid fuels	Natural gas	Other gases
Annual energy input (TJ)	14437.47118	0	0	0	0	0	0	14437.47118	0
Total Annual SO_2 emission (tonnes)	0.083								
Total Annual NO_x emission (tonnes)	212.781								
Total Annual Dust (PM) emission (tonnes)	0								

Signed on behalf of the Operator: Huw Edwards Date: 27/01/2017

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

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:	LCP1 (324) (hours)	Bypass (hours)	LCP2 (325) (hours)	Bypass (hours)	LCP3 (hours)	Bypass (hours)	LCP4 (hours)	Bypass (hours)
Annual Operating Hours [a], [b]	6,094	N/A	5,830	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: ..... Huw Edwards

Huw Edwards

22 FEB 2017

EHS Manager

Hu Edwards

Date of return: 27/01/2017

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 2016

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result (1)	Test Method (2)	Sample Date and Time (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	8.6	pH Probe	10th 14:51	
	W3	pH	No limit set	Monthly spot	6.7	pH Probe	10th 14:51	
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	14th 01:28	
	W3	pH	No limit set	Monthly spot	7.5	pH Probe	14th 01:28	
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	8.6	pH Probe	12th 11:00	
	W3	pH	No limit set	Monthly spot	8.6	pH Probe	12th 11:00	

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
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	8.6	pH Probe	15th 22:37	
	W3	pH	No limit set	Monthly spot	7.5	pH Probe	15th 22:37	
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	7.5	pH Probe	10th 05:00	
	W3	pH	No limit set	Monthly spot	8.7	pH Probe	10th 05:00	
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	8.7	pH Probe	6th 05:09	
	W3	pH	No limit set	Monthly spot	7.0	pH Probe	6th 05:09	

Huw Edwards
22 FEB 2017
EHS Manager
Huw Edwards

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
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	7.6	pH Probe	23rd 04:21	
	W3	pH	No limit set	Monthly spot	6.0	pH Probe	23rd 04:21	
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	7.3	pH Probe	22nd 17:02	
	W3	pH	No limit set	Monthly spot	7.9	pH Probe	22nd 17:02	
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	
	W2	pH	No limit set	Monthly spot	7.6	pH Probe	24th 23:28	
	W3	pH	No limit set	Monthly spot	6.3	pH Probe	24th 23:28	

Huw Edwards

22 FEB 2017

EHS Manager

Huw Edwards

Month	Emissions Point	Parameter	Emission Limit Value	Reference Period	Result (1)	Test Method (2)	Sample Date and Times (3)	Uncertainty (4)
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	8.8	pH Probe	21st 14:12	
	W3	pH	No limit set	Monthly spot	5.9	pH Probe	21st 14:12	
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	8.4	pH Probe	15th 14:23	
	W3	pH	No limit set	Monthly spot	6.1	pH Probe	15th 14:23	
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	7.0	pH Probe	18th 02:02	
	W3	pH	No limit set	Monthly spot	6.6	pH Probe	18th 02:02	

H Edwards

[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 ..... Date 22/02/17

(Authorised to sign as representative of Operator)

Huw Edwards
22 FEB
EHS Manager