Mrs Karen Dunn
Senior Officer - Industry & Waste Regulation
South West Wales Industry Regulation Team
Natural Resources Wales (NRW)
Maes Newydd
Llandarcy
Neath Port Talbot
SA10 6JQ

Our Ref: SHLNG-TS-ENV-C-587

Your Ref: EPR/XP3538LD

Date: 10 July 2020

Dear Mrs Dunn

Operator: South Hook LNG Terminal Company LTD.
EPR Environmental Permit Number EPR/ XP3538LD
Condition 4.2.3 – Report(s) of the Permit Monitoring and Assessments

Please find enclosed the report(s) of the permit monitoring and assessments undertaken for the Q1 and Q2 2020 period, from 1 January 2020 to 30 June 2020.

Please do not hesitate to contact me should you have any queries.

Yours sincerely

Dr. Shane Evans
Senior Environmental Engineer.

Attachments:

- Form Number: Water1a / 14th October 2015

cc. Mr Zoltan Hazos, Technical Services Manager.

12/07/2020

Permit Number: EPR/XP3538LD Operator: South Hook LNG Terminal Company LTD.

Facility: South Hook LNG Terminal ***Form Number: Water1a / 14th October 2015***

Reporting of emissions to water (other than to sewer) and land for the period from 01/01/2020 to 30/06/2020 for Table S3.2a

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
W1a	pH	6-9	Daily minimum - maximum	7.1 8.2	BS ISO 10523	1, 30 Mar 2020; 24 Apr 2020 4,5,7,10,11,12,14,15,16,18, 20,21,22,23,27,29 Feb 2020; 4,6,7 Mar 2020	4.11%
W1a	Turbidity	-	Daily maximum	38	BS EN ISO 7027	29-Apr-20	44.51%
W1a	Oil and grease	None visible	Daily spot	None visible	Visual check	na	na
W1a	TOC	-	Weekly spot	2.7	BS EN 1484	18-Feb-20	12.94%
W1a	List 2 metals (copper, zinc and iron only)	-	Monthly maximum		APHA 3120B		
	Copper	-		<2 µg/l		16 Jan, 6 Feb, 12 Mar, 16 Apr, 14 May, 11 Jun 2020	3.01%
	Zinc	-		25 µg/l		11-Jun-20	9.12%
	Iron	-		35 µg/l		12-Mar-20	10.13%
W2	Flow	3500 m^3 per day	Continuous	1225.58	Flow meter	25/04/2020 100% data capture	0.56%
W2	Flow	164 m^3 per hr	Continuous	95.30	Flow meter	03/03/2020 100% data capture	0.56%
W2	pH	6-9	Daily minimum - maximum	4.60* 6.28 with outlier 4.60 removed 8.97	BS ISO 10523	22 Feb 2020 23 Feb 2020 21 Feb 2020 100% data capture	0.13 pH units
W2	Nitrates as N	50 mg/l	Daily maximum	14	APHA 4500-NO3-B: 2011	22-Feb-20	2.53%
W2	Nitrates as N	100 kg N/day	Daily maximum	14.58	APHA 4500-NO3-B: 2011	24-Jan-20	2.59%
W2	Nitrates as N	50 kg N/day annual mean	Annual average	6.07	APHA 4500-NO3-B: 2011	na	2.59%
W2	Oil and grease	None visible	Daily spot	None Visible	Visual check	na	na
W2	Total Residual Oxidant (As Total Free Chlorine) Limit = 0.1	0.1 mg/l	Monthly spot	<0.02 mg/l	Hach DPD Chlorine test kit for Total Free Chlorine	16 Jan, 6 Feb, 12 Mar, 16 Apr, 14 May, 11 Jun 2020	20.29%
W2	Biological Oxygen Demand (BOD)	-	Monthly spot	19 mg/l	HMSO BOD5 II 1988	12-Mar-20	48.08%
W2	Temperature	30 °C	Daily maximum	17.73	Standard thermocouple	22/01/2020 100% data capture	0.20%

[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 Natural Resources Wales is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example 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 ……B L Evans…… Date……10 July 2020……..
(Authorised to sign as representative of Operator)

na = not applicable

* There were 5 minor short-lived transient 'spike' events which resulted in the pH being slightly <6 for c. 5.5 % of the time (i.e. for a total of 1.32 hours) on gas day 22 February 2020 (refer to Schedule 5 - Notifications via emails to NRW sent Mon 24/02/2020 18:45 (Part A) and Wed 26/02/2020 11:21 (Part B)

12/07/2020

Permit Number: EPR/XP3538LD Operator: South Hook LNG Terminal Company LTD.

Facility: South Hook LNG Terminal ***Form Number: Water1b / 14th October 2015***

Reporting of emissions to water (other than to sewer) and land for the period from 01/01/2020 to 30/06/2020 for Table S3.2b

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
W1b	pH	6-9	Daily maximum	na	BS ISO 10523	na	4.11%
W1b	Turbidity	-	Daily maximum	na	BS EN ISO 7027	na	44.51%
W1b	Oil and grease	None visible	Daily spot	na	Visual check	na	na
W1b	TOC	-	Weekly spot	na	BS EN 1484	na	12.94%
W1b	List 2 metals (copper, zinc and iron only)	-	Monthly maximum	na	APHA 3120B	na	
W2	Flow	3100 m^3 per day	Continuous	na	Flow meter	na % data capture	0.56%
W2	Flow	144 m^3 per hr	Continuous	na	Flow meter	na % data capture	0.56%
W2	pH	6-9	Daily maximum	na	BS ISO 10523	na % data capture	0.13 pH units
W2	Nitrates as N	50 mg/l	Daily maximum	na	APHA 4500-NO3-B: 2011	na	2.53%
W2	Nitrates as N	45 kg N/day	Annual average	na	APHA 4500-NO3-B: 2011	na	2.59%
W2	Oil and grease	None visible	Daily spot	na	Visual check	na	na
W2	Total Residual Oxidant (As Total Free Chlorine) Limit = 0.1	0.1 mg/l	Monthly spot	na	Hach DPD Chlorine test kit for Total Free Chlorine	na	20.29%
W2	Biological Oxygen Demand (BOD)	-	Monthly spot	na	HMSO BOD5 II 1988	na	48.08%
W2	Temperature	30 °C	Daily maximum	na	Standard thermocouple	na % data capture	0.20%

[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 Natural Resources Wales is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example 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 ……B Kewan…… Date……10 July 2020……..
(Authorised to sign as representative of Operator)

na = not applicable

12/07/2020