

Operator: Valero Energy Ltd.

Installation Location: Pembroke Refinery, Pembroke, SA71 5SJ

Parameters: Sulphur Dioxide

Reporting period: 2021

Release point	Monthly Bubble Concentration	Monthly Emission Limit Value	Maximum Hourly Bubble Concentration	Total Monthly Emissions	LCP371		LCP373		LCP375		LCP372		LCP374		A5A		A6A		A11		A13		A19	
	All units	All units	All units	All units	Stack 1 (Boilers)		Stack 6 (Boilers)		Stack 8 (CDU/VDU/VBU)		Platformer		C&O		FCCU		SRU		HTU1/Unifiner		HTU2		ULSG	
Month	Emission Concentration mg/Nm3	mg/Nm3	mg/Nm3	Tonnes/month	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr	Emission Concentration mg/Nm3	Flue gas flow rate Nm3/hr
Jan	60.5	298.4	292.1	55.6	5.8	204,308	7.7	147,993	23.4	247,058	5.2	87,643	4.6	79,418	99.5	274,177	9,223.7	4,229	8.8	64,127	4.3	32,930	4.8	46,664
Feb	12.2	35.0	31.9	1.7	8.5	144,982	49.3	53,395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mar	6.2	35.0	39.4	0.7	6.1	120,437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apr	146.5	219.1	1,310.5	82.7	9.0	139,488	6.0	98,602	87.3	199,712	9.4	102,476	-	-	-	-	28,135.6	3,634	9.3	74,434	9.7	38,892	-	-
May	104.5	279.9	565.7	81.9	11.9	199,925	9.1	132,250	59.5	261,747	12.7	99,949	10.7	70,195	172.8	275,385	11,711.3	4,751	12.8	72,959	12.7	35,368	17.1	42,224
Jun	134.0	322.8	492.7	152.1	9.8	198,784	6.6	173,093	41.9	296,874	5.6	92,797	5.5	82,384	269.9	308,040	15,639.0	4,272	5.5	81,790	5.5	34,809	5.5	49,471
Jul	161.3	338.1	277.6	197.5	11.4	188,491	7.8	179,072	31.6	275,625	1.7	77,993	1.7	76,182	352.3	368,632	16,712.8	4,347	1.7	74,671	1.7	31,619	1.7	45,769
Aug	185.4	348.8	281.7	238.4	10.7	196,111	8.3	174,166	40.7	285,026	2.0	87,507	2.0	81,858	462.4	398,195	12,817.7	4,593	2.0	83,952	2.0	28,109	2.0	49,965
Sep	146.3	323.5	599.7	175.4	3.6	221,879	10.4	162,643	29.8	290,709	3.9	82,346	4.0	80,396	392.1	358,448	11,706.9	4,693	4.2	86,642	4.0	33,181	3.9	50,917
Oct	106.7	305.3	238.7	134.7	4.5	235,420	10.5	166,162	17.4	278,361	1.7	95,803	1.7	78,156	262.8	329,961	11,494.8	4,549	1.7	90,750	1.7	32,774	1.7	48,567
Nov	149.3	324.3	274.3	179.9	3.8	186,478	10.2	153,848	13.8	283,188	0.5	102,077	0.5	79,276	434.3	341,746	8,549.3	4,992	0.5	95,208	0.5	43,562	0.5	49,777
Dec	145.6	336.8	234.8	176.0	3.0	166,807	5.1	156,410	9.7	285,635	1.0	98,546	1.0	79,348	455.9	355,792	4,816.6	4,456	1.2	89,836	1.0	44,691	1.0	50,611

Note 1: Bubble emission limits suspended from 21st January 2021 to 1st June as per Job Aid PP-HES-JBA-0051

Signed : RD Livock Name : Richard Livock

On behalf of the Operator Valero Energy Ltd.

Date : 18/01/2022