

Operator: Valero Energy Ltd.

Installation Location: Pembroke Refinery, Pembroke, SA71 5SJ

Parameters: Sulphur Dioxide

Reporting period: 2022

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	144.7	337.7	183.4	165.5	5.0	173,677	5.4	151,896	8.3	272,603	2.3	90,794	2.3	81,480	457.2	337,458	4,628.8	4,148	2.1	87,174	2.3	42,109	2.3	46,992
Feb	113.6	319.3	203.1	121.5	3.8	199,840	11.3	158,559	22.9	260,019	3.3	93,813	3.3	78,329	339.1	324,517	5,929.9	4,728	3.2	91,136	3.3	42,048	3.3	46,197
Mar	130.1	331.3	225.6	161.1	3.9	189,387	13.6	149,252	18.8	272,312	3.6	100,511	3.6	88,708	332.7	353,890	9,708.3	4,782	3.6	91,729	3.6	47,758	3.6	46,957
Apr	172.9	345.5	386.4	207.3	17.9	199,867	25.1	119,765	30.5	273,548	17.4	99,734	17.4	87,772	399.5	373,153	12,014.8	5,001	18.9	89,250	17.4	47,971	17.4	46,071
May	101.3	361.2	198.7	120.5	9.3	162,917	14.0	130,597	20.8	275,656	6.2	104,732	6.2	81,903	199.5	380,493	8,433.3	5,080	6.3	83,619	6.2	44,145	6.2	44,820
Jun	61.5	346.4	95.3	71.3	11.4	175,440	13.7	124,233	22.2	271,448	7.7	105,052	7.7	77,336	81.7	376,374	7,898.0	5,380	7.6	81,095	7.7	47,016	7.7	42,493
Jul	61.0	341.7	119.1	71.3	13.2	223,006	14.4	133,080	28.9	246,127	11.3	104,410	11.3	75,366	80.2	340,907	7,209.5	5,514	11.6	73,863	11.3	36,326	11.3	43,379
Aug	83.9	353.3	136.9	96.4	13.2	191,174	14.0	113,947	53.4	267,216	12.9	105,483	12.9	76,542	115.4	348,362	7,470.1	5,501	12.3	79,603	12.9	35,974	12.9	42,698
Sep	86.7	332.4	253.3	100.1	14.6	202,776	18.7	110,139	49.5	272,952	13.5	112,910	13.5	86,530	129.7	354,125	7,363.2	5,739	13.1	84,896	13.5	41,768	13.5	44,868
Oct	137.3	352.9	217.2	169.9	12.4	214,307	16.8	103,841	49.2	283,454	10.7	108,905	10.7	87,734	311.6	359,221	8,230.1	5,833	10.7	88,977	10.7	41,263	10.7	46,612
Nov	102.7	360.4	230.9	118.5	11.1	229,895	12.0	80,257	45.9	284,788	8.7	91,693	8.7	80,277	197.7	348,094	7,829.1	5,674	8.7	80,543	8.7	37,362	8.7	46,517
Dec	92.8	349.0	256.7	111.3	6.9	202,466	11.6	105,513	43.3	273,102	2.3	100,694	2.3	91,002	174.2	346,487	7,678.9	5,648	2.3	83,294	2.3	42,932	2.3	51,065

**Note 1:** Bubble emission limits suspended from 26th January to 7th April as per Job Aid PP-HES-JBA-0051  
**Note 2:** Bubble emission limits suspended from 13th June to 26th June as per Job Aid PP-HES-JBA-0051  
**Note 3:** Bubble emission limits suspended from 23rd September to 27th September as per Job Aid PP-HES-JBA-0051

Signed : SLGregory Name : Sabrina Gregory

On behalf of the Operator Valero Energy Ltd.

Date : 11/01/2023