

FORM AIR 5: Refinery fuel analysis and sulphur balance

Permit Number : EPR/YP3930EX

Operator : Valero Energy Ltd

Installation Location : Pembroke Refinery, Pembroke, SA71 5SJ

Parameters : Sulphur and Sulphur dioxide

Reporting year : 2022

Month		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
RFO sulphur (%)	Mean	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used
	Max	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used
Visbreaker residue sulphur (%)	Mean	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used
	Max	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used
RFG sulphur (ppm)	Mean	0.70	0.75	0.68	21.47	0.88	1.61	1.96	1.15	1.51	0.75	1.70	0.80
	Max	4	5	2	342	2	2	10	5	5	5	7	3
	hrs >200	0	0	0	58	0	0	0	0	97	0	0	0

Note 1: RFG not sampled from 23rd September to 27th September

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
S In SI - tonnes	1703	1459	1815	2321	2057	1851	2254	1990	2112	2521	2631	2264
S to air - tonnes	126	95	86	107	62	125	52	54	81	102	99	64
S in products - tonnes	632	776	892	1128	1228	1213	981	1053	1106	1081	1067	1320
S Recovered (SR) - tonnes	545	564	573	1159	1273	1044	911	1002	1254	1425	1327	1221
SR/SI - %	32	39	32	50	62	56	40	50	59	57	50	54
SRU 1 efficiency - %	97.7	0.0	98.1	98.0	97.6	97.5	98.0	98.1	98.0	98.1	98.3	98.5
SRU 2 efficiency - %	97.6	97.9	97.7	96.7	98.0	98.4	98.0	98.1	97.1	98.3	98.4	97.7
SRU overall efficiency - %	98.8	98.5	98.3	97.9	98.4	98.4	98.6	98.6	98.3	98.6	98.8	98.7
SRU 1 hours online	597	70	743	716	744	340	742	744	720	745	720	744
SRU 2 hours online	466	669	94	649	744	720	744	744	585	745	712	744
SRU 1 tailgas incinerator hours off-line	71	581	0	0	0	346	0	0	0	0	0	0
SRU 2 tailgas incinerator hours off-line	0	0	584	41	0	0	0	0	92	0	1	0
% hours SRU 1 on-line	80.24%	10.42%	100.00%	99.44%	100.00%	47.22%	99.73%	100.00%	100.00%	100.00%	100.00%	100.00%
% hours SRU 2 on-line	62.63%	99.55%	12.65%	90.14%	100.00%	100.00%	100.00%	100.00%	81.25%	100.00%	98.89%	100.00%
% hours at least one SRU on-line	100.00%	99.55%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Signed : SLGregory

Name : Sabrina Gregory

On behalf of the Operator Valero Energy Ltd

Date : 11/01/2023