

CHEMICALS



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INTEROFFICE / LAKE CHARLES

TO Phillip Trew DATE January 8, 1982
FROM Michael Carver SUBJECT Vent Sampling

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Please disregard memo sent January 5, 1982, due to computational errors in the analysis.

A scrubber vent at the Waste Treatment Unit has been recently analyzed to determine the amounts of chlorinated hydrocarbons vented to the atmosphere. The vent is 0.49 feet in diameter. The linear flow rate generally runs between 7 and 40 feet/min.

Attached is a series of analyses with corresponding operating parameters.

gaj

cc: John Hart
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Attachments

SL 073104

Analysis of waste treatment unit
scrubber vent for chlorinated hydrocarbon
sampled 10-23-81) # 1 of 3 samples. Linear flow
rate 26.4 ft/min

Component		% V/V	lb/Day
Chloroethene	(VC)	0.17	1.8
Chloroethane	(EC)	1.90	20.2
Methylene Chloride	(MeCl ₂)	0.29	4.0
1,1-Dichloroethene	(VDC)		
1,1-Dichloroethane	(DCE)	0.56	9.1
1,2-Dichloroethene	(Cis/Trans)	0.05	0.8
Trichloromethane	(CHCl ₃)	0.18	3.5
1,2-Dichloroethane	(EDC)	2.36	35.4
1,1,1-Trichloroethane	(MC)		
Tetrachloromethane	(CCl ₄)		
Trichloroethene	(Trichlor)	0.20	4.3
1,1,2-Trichloroethane	(TCE)	0.26	5.7
Tetrachloroethene	(Perchlor)	0.30	8.2
1,1,1,2-Tetrachloroethane (unsym)		0.40	11.1
1,1,2,2-Tetrachloroethane (sym)		0.21	5.8
Pentachloroethane (penta)		0.06	2.0
Total CHC		6.9	115

Analysis of waste treatment unit
scrubber vent for chlorinated hydrocarbons
(sampled 12-30-81) #2 of 3 samples. Linear flow
rate 40 ft/min

Component		% V/V	lb/Day
Chloroethene	(VC)	0.14	2.2
Chloroethane	(EC)	0.99	15.9
Methylene Chloride	(MeCl ₂)	0.28	5.9
1,1-Dichloroethene	(VDC)		
1,1-Dichloroethane	(DCE)	<0.01	
1,2-Dichloroethene	(Cis/Trans)	3.12	75.4
Trichloromethane	(CHCl ₃)	0.26	7.7
1,2-Dichloroethane	(EDC)	2.62	64.7
1,1,1-Trichloroethane	(MC)		
Tetrachloromethane	(CCl ₄)		
Trichloroethene	(Trichlor)	0.19	6.2
1,1,2-Trichloroethane	(TCE)	0.10	3.3
Tetrachloroethene	(Perchlor)	0.03	1.2
1,1,1,2-Tetrachloroethane (unsym)		<0.01	
1,1,2,2-Tetrachloroethane (sym)		<0.01	
Pentachloroethane (penta)		<0.01	
Total ClHC		7.73	182.5

Analysis of waste treatment unit
scrubber vent for chlorinated hydrocarbon
(sampled 12-31-81) #3 of 3 samples. Linear
flow rate 7.5 ft/min

Component		% V/V	lb/Day
Chloroethene	(VC)	0.25	0.7
Chloroethane	(EC)	16.63	50.2
Methylene Chloride	(MeCl ₂)	0.32	1.3
1,1-Dichloroethene	(VDC)		
1,1-Dichloroethane	(DCE)	0.40	1.9
1,2-Dichloroethene	(Cis/Trans)	2.17	9.8
Trichloromethane	(CHCl ₃)	0.10	0.6
1,2-Dichloroethane	(EDC)	3.09	14.3
1,1,1-Trichloroethane	(MC)		
Tetrachloromethane	(CCl ₄)		
Trichloroethene	(Trichlor)	0.31	1.9
1,1,2-Trichloroethane	(TCE)	0.02	0.1
Tetrachloroethene	(Perchlor)	0.02	0.2
1,1,1,2-Tetrachloroethane (unsym)		0.02	0.2
1,1,2,2-Tetrachloroethane (sym)		0.10	0.8
Pentachloroethane (penta)		<0.01	-
Total ClHC		40.60	82

WTU Scrubber Operating Data

	<u>Stripper No. 1</u>	<u>Stripper No. 2</u>
(1) Date: 10-23-81		
Flow (gpm)	580	370
Preheater Temp. (in) °F	172	140
(out) °F	211	215
Condensing Temp. °F	130	130
Stripper Bottoms; Cl Hyd, ppm	4.4	59.8
(2) Date: 12-30-81		
Flow (gpm)	400	360
Preheater Temp. (in) (°F)	180	156
(out) (°F)	210	217
Condensing Temp. (°F)	130	130
Stripper Bottoms; Cl Hyd, ppm	---	40
(3) Date: 12-31-81		
Flow (gpm)	560	330
Preheater Temp. (in) (°F)	176	148
(out) (°F)	209	216
Condensing Temp. (°F)	130	130
Stripper Bottoms; Cl Hyd, ppm	14.5	35.4