

Focus Environmental, Inc. Calculation Sheet

By ATC Date 5/22/06 Subject Westates DCE Sheet No. 1 of 2

Chkd. By _____ Date _____ Proj. No. 010111

Purpose Calculate DCE for Monochlorobenzene and Tetrachloroethene (perchloroethylene).

$$DCE = \frac{W_{in} - W_{out}}{W_{in}} \times 100 = \left[1 - \frac{W_{out}}{W_{in}} \right] \times 100$$

where W_{in} = Mass feed rate of compound

W_{out} = Mass emission rate of compound

Feed Rates

Note: Only used spiked amounts for DCE calculations. Concentrations in waste activated carbon feed were non-detect or very small.

Spiking rates were measured by the spiking contractor using two methods (scales & mass flow meters). Both were consistent. Used lower value in each case to be conservative.

	<u>Run 1</u>	<u>Run 2</u>	<u>Run 3</u>
Monochlorobenzene	34.81 lb/hr	35.05 lb/hr	35.05 lb/hr
Tetrachloroethene	35.04 lb/hr	35.02 lb/hr	34.84 lb/hr

Emission Rates

Monochlorobenzene	$< 2.99 \times 10^{-3}$ lb/hr	$< 1.05 \times 10^{-3}$ lb/hr	2.09×10^{-3} lb/hr
Tetrachloroethene	$< 1.73 \times 10^{-3}$ lb/hr	$< 6.26 \times 10^{-4}$ lb/hr	$< 8.35 \times 10^{-4}$ lb/hr

Focus Environmental, Inc. Calculation Sheet

By AZE Date 5/22/06 Subject Westate DZE Sheet No. 2 of 2

Chkd. By _____ Date _____ Proj. No. 010111

DZE Calculations Note: Final result reported @ 2 Sig Fig.

MCB Run 1. $\left[1 - \frac{2.99 \times 10^{-3}}{34.81} \right] \times 100 = (1 - 8.59 \times 10^{-5}) \times 100$
 $= > 99.9914 \%$

Run 2 $\left[1 - \frac{1.05 \times 10^{-3}}{35.05} \right] \times 100 = (1 - 2.99 \times 10^{-5}) \times 100$
 $= > 99.9970 \%$

Run 3 $\left[1 - \frac{2.09 \times 10^{-3}}{35.05} \right] \times 100 = (1 - 5.96 \times 10^{-5}) \times 100$
 $= 99.9940 \%$

Perc Run 1 $\left[1 - \frac{1.73 \times 10^{-3}}{35.04} \right] \times 100 = (1 - 4.94 \times 10^{-5}) \times 100$
 $= > 99.9951 \%$

Run 2 $\left[1 - \frac{6.26 \times 10^{-4}}{35.02} \right] \times 100 = (1 - 1.79 \times 10^{-5}) \times 100$
 $= > 99.9982 \%$

Run 3 $\left[1 - \frac{8.35 \times 10^{-4}}{34.84} \right] \times 100 = (1 - 2.40 \times 10^{-5}) \times 100$
 $= > 99.9976 \%$