Appendix A

Interim Screening Concentrations for Carcinogens

Calculation of Interim Screening Concentrations for Carcinogens
12/4/2003

Inhalation Unit Risk (risk per ug/m^3) = Slope Factor x 1 / BW x IR x 10^{-3} (mg/ug)

where: BW = Body Weight, Adult (70 kg)
IR = Inhalation Rate, Adult (20 m^3/day)
Slope Factor = Cancer Slope Factor $(mg/kg/day)^{-1}$

$$\text{Interim Screening Concentration (ISC, in ug/m}^3\text{)} = \frac{\text{TR}}{\text{Unit Risk}}$$

where: TR = Target Risk (1×10^{-5})

Compound	Conv. Factor (ug/m^3/ppb)	Cancer Slope Facto	Source	Unit Risk (per ug/m^3)	ISC (ug/m^3)
Carbon Tetrachloride	6.39	0.0525	IRIS	0.000015	0.7
Tetrachloroethylene (PCE	6.89	0.0105	EPA*	0.000003	3
Trichloroethylene (TCE)	5.46	0.089	EPA**	0.000025	0.4

* Provisional EPA-NCEA value
** Geometric mean of EPA-NCEA proposed cancer slope factor range, 8/01
Reference:
Vapor Intrusion Guidance (http://www.health.state.mn.us/divs/eh/hazardous/vaporinstrusion.html)