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

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

where: TR = Target Risk (1 x 10^-5)

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

* 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)