Appendix B. Sample Change Out Calculation

Report Details
Country: United States - English
Date: 08/04/2015
3M Contact Information:
PSD Technical Service 1-800-243-4630
Comments:

Cartridge
Product Name: 6001
Description: NIOSH approved against certain organic vapors. Use with 3M(TM) Half and Full Facepieces 6000, 7000 and FF-400 Series with bayonet filter holders.
Image

WARNING:
These results are estimates only and must be used with caution. Change cartridge earlier if taste, smell or irritation from the contaminant is detected.

Your estimated service life is greater than 8 hours. Please see information on contaminant migration through the cartridge in the Help document. Establish cartridge change schedules that are easy for workers to remember (e.g., 1 day, 1 week, 1 month).

Solution
Estimated Service Life is 370 Hours until breakthrough to 10% of the exposure concentration (0.5 ppm)
Service life calculation based on Toluene at an Exposure = 5.0 ppm

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>CAS Number</th>
<th>Exposure</th>
<th>Exposure Limit</th>
<th>Molecular Weight</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>106-48-3</td>
<td>5 ppm</td>
<td>20 ppm TLV</td>
<td>92.14</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Environment Questions:
Relative Humidity: <55%
Atmospheric Pressure: 1.0
Temperature: 68 Fahrenheit
Work Rate: Medium