

$$A_C = \sum_{i=1}^m (\text{Vol}_{c,i})(D_{c,i})(W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

$A_C$  = total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$\text{Vol}_{c,i}$  = total volume of coating, i, used during the month, liters.

$D_{c,i}$  = density of coating, i, kg per liter.

$W_{c,i}$  = mass fraction of organic HAP in coating, i, kg per kg.

$m$  = number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 1B of this section.

$$B_C = \sum_{j=1}^n (\text{Vol}_{t,j})(D_{t,j})(W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

$B_C$  = total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg.

$\text{Vol}_{t,j}$  = total volume of thinner, j, used during the month, liters.

$D_{t,j}$  = density of thinner, j, kg per liter thinner.

$W_{t,j}$  = mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

$n$  = number of different thinners used.

(i) [Reserved]

(j) Calculate the organic HAP emission reduction for each controlled

coating operation using liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within  $\pm 2.0$  percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, kg, based on measurement with the device

required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will govern.

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3551(c).

(5) Measure the volume of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section.

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^m (\text{Vol}_i)(D_i)(WV_{c,i}) + \sum_{j=1}^n (\text{Vol}_j)(D_j)(WV_{t,j})} \quad (\text{Eq. 2})$$

Where:

$R_V$  = volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

$M_{VR}$  = mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

$\text{Vol}_i$  = volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_i$  = density of coating, i, kg per liter.

$WV_{c,i}$  = mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.

$\text{Vol}_j$  = volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_j$  = density of thinner, j, kg per liter.

$WV_{t,j}$  = mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

$m$  = number of different coatings used in the coating operation controlled

by the solvent recovery system during the month.

$n$  = number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 3 of this section.

$$H_{CSR} = (A_{CSR} + B_{CSR}) \left( \frac{R_V}{100} \right) \quad (\text{Eq. 3})$$