Environmental Protection Agency § 63.5885

How do I calculate percent reduction to demonstrate compliance for continuous lamination/casting operations?

You may calculate percent reduction using any of the methods in paragraphs (a) through (d) of this section.

(a) Compliant line option. If all of your wet-out areas have PTE that meet the requirements of EPA Method 204 of appendix M of 40 CFR part 51, and all of your wet-out area organic HAP emissions and oven organic HAP emissions are vented to an add-on control device, use Equation 1 of this section to demonstrate compliance. In all other situations, use Equation 2 of this section to demonstrate compliance.

\[
PR = \frac{(\text{Inlet}) - (\text{Outlet})}{(\text{Inlet})} \times 100 \quad \text{(Eq. 1)}
\]

Where:
- PR = percent reduction;
- Inlet = HAP emissions entering the control device, lbs per year;
- Outlet = HAP emissions exiting the control device to the atmosphere, lbs per year.

\[
PR = \frac{(\text{WAE}_{ci} + \text{O}_{ci}) - (\text{WAE}_{co} + \text{O}_{co})}{(\text{WAE}_{ci} + \text{WAE}_{u} + \text{O}_{ci} + \text{O}_{u})} \times 100 \quad \text{(Eq. 2)}
\]

Where:
- PR = percent reduction;
- WAE\textsubscript{i}/ci = wet-out area organic HAP emissions from wet-out area i, lbs per year, vented to a control device;
- WAE\textsubscript{i}/u = wet-out area organic HAP emissions from wet-out area i, lbs per year, not vented to a control device;
- O\textsubscript{j}/ci = oven organic HAP emissions from oven j, lbs per year, vented to a control device;
- O\textsubscript{j}/u = oven organic HAP emissions from oven j, lbs per year, not vented to a control device;
- O\textsubscript{j}/co = oven organic HAP emissions, lbs per year, from the control device outlet;
- O\textsubscript{j}/u = organic HAP emissions from oven j, lbs per year, not sent to a control device.

(b) Averaging option. Use Equation 3 of this section to calculate percent reduction.

\[
PR = \frac{\left(\sum_{i=1}^{m} \text{WAE}_{ci} + \sum_{j=1}^{n} \text{O}_{ci}\right) - \left(\sum_{i=1}^{m} \text{WAE}_{co} + \sum_{j=1}^{n} \text{O}_{co}\right)}{\left(\sum_{i=1}^{m} \text{WAE}_{ci} + \sum_{j=1}^{n} \text{O}_{ci} + \sum_{i=1}^{m} \text{WAE}_{u} + \sum_{j=1}^{n} \text{O}_{u}\right)} \times 100 \quad \text{(Eq. 3)}
\]

Where:
- PR = percent reduction;
- WAE\textsubscript{i}/ci = wet-out area organic HAP emissions from wet-out area i, lbs per year, sent to a control device;
- WAE\textsubscript{i}/u = wet-out area organic HAP emissions from wet-out area i, lbs per year, not sent to a control device;
- O\textsubscript{j}/co = oven organic HAP emissions from oven j, lbs per year, at the outlet of a control device;
- O\textsubscript{j}/u = organic HAP emissions from oven j, lbs per year, not sent to a control device;
§ 63.5890 How do I calculate an organic HAP emissions factor to demonstrate compliance for continuous lamination/casting operations?

(a) Compliant line option. Use Equation 1 of this section to calculate an organic HAP emissions factor in lbs/ton.

\[ E = \frac{WAE_u + WAE_c + O_u + O_c}{(R + G)} \]  

(Eq. 1)

Where:
- \( E \) = HAP emissions factor in lbs/ton of resin and gel coat
- \( WAE_u \) = uncontrolled wet-out area organic HAP emissions, lbs per year
- \( WAE_c \) = controlled wet-out area organic HAP emissions, lbs per year
- \( O_u \) = uncontrolled oven organic HAP emissions, lbs per year
- \( O_c \) = controlled oven organic HAP emissions, lbs per year
- \( R \) = total usage of neat resin plus, tpy
- \( G \) = total usage of neat gel coat plus, tpy

(b) Averaging option. Use Equation 2 of this section to demonstrate compliance.

\[ E = \frac{\sum_{i=1}^{m} WAE_{ui} + \sum_{i=1}^{o} WAE_{ci} + \sum_{j=1}^{n} O_{uj} + \sum_{j=1}^{p} O_{cj}}{(R + G)} \]  

(Eq. 2)

Where:
- \( E \) = HAP emissions factor in lbs/ton of resin and gel coat
- \( WAE_{ui} \) = uncontrolled organic HAP emissions from wet-out area \( i \), lbs per year
- \( WAE_{ci} \) = controlled organic HAP emissions from wet-out area \( i \), lbs per year
- \( O_{uj} \) = uncontrolled organic HAP emissions from oven \( j \), lbs per year
- \( O_{cj} \) = controlled organic HAP emissions from oven \( j \), lbs per year
- \( i \) = number of wet-out areas
- \( j \) = number of ovens
- \( m \) = number of wet-out areas uncontrolled
- \( o \) = number of ovens uncontrolled
- \( n \) = number of wet-out areas controlled
- \( p \) = number of ovens controlled
- \( R \) = total usage of neat resin plus, tpy
- \( G \) = total usage of neat gel coat plus, tpy

(c) Combination option. Use Equations 1 and 2 of this section, as applicable, to demonstrate compliance.

CONTINUOUS COMPLIANCE REQUIREMENTS

§ 63.5895 How do I monitor and collect data to demonstrate continuous compliance?

(a) During production, you must collect and keep a record of data as indicated in 40 CFR part 63, subpart SS, if you are using an add-on control device.

(b) You must monitor and collect data as specified in paragraphs (b)(1) through (4) of this section.

(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times that the affected source is operating.