**Section 219.212 Cross-Line Averaging to Establish Compliance for Coating Lines**

a) On and after March 15, 1996, any owner or operator of a coating line subject to the limitations set forth in Section 219.204 of this Subpart, except coating lines subject to the limitations in Section 219.204(a)(2), (c)(2), (g)(2), (h)(2), (o) or (q) of this Subpart, and with coating lines in operation prior to January 1, 1991 (pre-existing coating lines), may, for pre-existing coating lines only, elect to comply with the requirements of this Section, rather than complying with the applicable emission limitations set forth in Section 219.204, if an operational change of the type described below has been made after January 1, 1991, to one or more pre-existing coating lines at the source. An operational change occurs when a pre-existing coating line is replaced with a line using lower VOM coating for the same purpose as the replaced line (replacement line). A source electing to rely on this Section to demonstrate compliance with the requirements of this Subpart shall operate pursuant to federally enforceable permit conditions approved by the Agency and USEPA.

b) An owner or operator of pre-existing coating lines subject to a VOM content limitation in Section 219.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart must establish, by use of the equations in subsection (d) of this Section, that the calculated actual daily VOM emissions from all participating coating lines, as defined in this subsection, are less than the calculated daily allowable VOM emissions from the same group of coating lines. For any pre-existing coating line to be aggregated for the purposes of Section 219.212, 219.213, or 219.214 of this Subpart (participating coating lines), the source must establish that:

1) All coatings applied on the participating coating line shall, at all times, have a VOM content less than or equal to the applicable VOM content limitation for such coating listed in Appendix H of this Part; and

2) On the date the source elects to rely on this Section to demonstrate compliance with this Subpart, all coatings applied on the participating coating line are not already in compliance with the VOM content limitation for such coating effective on or after March 15, 1996; or the participating coating line is a replacement line, as defined in subsection (a) of this Section with an operational change occurring on or after January 1, 1991.

c) Notwithstanding subsection (a) of this Section, any owner or operator of a coating line subject to the limitations set forth in Section 219.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart, may also include as a participating coating line, until December 31, 1999, only, any replacement line that satisfies all of the following conditions:

1) The replacement line is operated as a powder coating line;

2) The replacement line was added after July 1, 1988; and

3) The owner or operator also includes as a participating coating line one or more coating lines that satisfy the criteria of a replacement line, as described in subsection (a) of this Section.

d) To demonstrate compliance with this Section, a source shall establish the following:

1) An alternative daily emission limitation shall be determined for all participating coating lines at the source according to subsection (d)(2) of this Section. All participating coating lines shall be factored in each day to demonstrate compliance. Provided compliance is established pursuant to the requirements in this subsection, nothing in this Section requires daily operation of each participating line. Actual daily emissions from all participating coating lines (Ed) shall never exceed the alternative daily emission limitation (Ad) and shall be calculated by use of the following equation:



where:

|  |  |  |
| --- | --- | --- |
| Ed | = | Actual daily VOM emissions from participating coating lines in units of kg/day (lbs/day); |
|  | | |
| i | = | Subscript denoting a specific coating applied; |
|  | | |
| n | = | Total number of coatings applied by all participating coating lines at the source; |
|  | | |
| Vi | = | Volume of each coating applied for the day in units of l/day (gal/day) of coating (minus water and any compounds that are specifically exempted from the definition of VOM); and |
|  | | |
| Ci | = | The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM). |

1. The alternative daily emission limitation (Ad) shall be determined for all participating coating lines at the source on a daily basis as follows:



where Ai and Ap are defined in subsections (d)(2)(A) and (d)(2)(B) of this Section.

A) The portion of the alternative daily emissions limitation for coating operations at a source using non-powder coating (Ai) shall be determined for all such participating non-powder coating lines on a daily basis as follows:



where:

|  |  |  |
| --- | --- | --- |
| Ai | = | The VOM emissions allowed for the day in units of kg/day (lbs/day); |
|  | | |
| i | = | Subscript denoting a specific coating applied; |
|  | | |
| n | = | Total number of coatings applied by all participating coating lines at the source; |
|  | | |
| Ci | = | The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM); |
|  | | |
| Di | = | The density of VOM in each coating applied. For the purposes of calculating Ai, the density is 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM); |
|  | | |
| Vi | = | Volume of each coating applied for the day in units of l (gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM); and |
|  | | |
| Li | = | The VOM emission limitation for each coating applied, as specified in Section 219.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM). |

B) The portion of the alternative daily emission limitation for coating operations at a source using powdered coating (Ap) shall be determined for all such participating powder coating lines at the source on a daily basis as follows:



where:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ap | = | The VOM emissions allowed for the day in units of kg/day (lbs/day); | | |
|  | | | | |
| h | = | Subscript denoting a specific powder coating line; | | |
|  | | | | |
| j | = | Subscript denoting a specific powder coating applied; | | |
|  | | | | |
| m | = | Total number of participating powder coating lines; | | |
|  | | | | |
| n | = | Total number of powder coatings applied in the participating coating lines; | | |
|  | | | | |
| Dj | = | The assumed density of VOM in liquid coating, 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM); | | |
|  | | | | |
| Vj | = | Volume of each powder coating consumed for the day in units of l (gal) of coating; | | |
|  | | | | |
| Lj | = | The VOM emission limitation for each coating applied, as specified in Section 219.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM); and | | |
|  |  |  | | |
| K | = | A constant for each individual coating line representing the ratio of the volume of coating solids consumed on the liquid coating system that has been replaced to the volume of powder coating consumed on the replacement line to accomplish the same coating job. This value shall be determined by the source based on tests conducted and records maintained pursuant to the requirements of Section 219.213 of this Subpart demonstrating the amount of coating solids consumed as both liquid and powder. Tests methods and recordkeeping requirements shall be approved by the Agency and USEPA and contained in the source's operating permit as federally enforceable permit conditions, subject to the following restrictions: | | |
|  | |  | |  |
|  | | i) | | K cannot exceed 0.9 for non-recycled powder coating systems; or |
|  | | | | |
|  | | ii) | K cannot exceed 2.0 for recycled powder coating systems. | |

(Source: Amended at 34 Ill. Reg. 14326, effective September 14, 2010)