

§ 63.1298

40 CFR Ch. I (7-1-13 Edition)

HAP ABA formulation limitation shall be determined using Equation 3.

(iii) For each foam grade with a density greater than 0.95 pounds per cubic foot and an IFD greater than 15 pounds, the HAP ABA formulation limitation shall be zero.

(iv) For each foam grade with a density greater than 1.40 pounds per cubic foot, the HAP ABA formulation limitation shall be zero.

(3) With the exception of those grades for which the owner or operator has designated zero as the HAP ABA formulation limitation, the IFD and density for each foam grade shall be determined in accordance with § 63.1304(b) and recorded in accordance with § 63.1307(c)(1)(i)(B) or § 63.1307(c)(2)(i)(B)

within 10 working days of the production of the foam.

(e) *Compliance using recovery devices.* If a recovery device is used to comply with paragraphs (b) or (c) of this section, the owner or operator shall determine the allowable HAP ABA emissions for each month using Equation 2 in paragraph (b)(2) of this section, and the actual monthly HAP ABA emissions in accordance with paragraph (e)(1) of this section. The owner or operator shall also comply with the provisions of paragraph (e)(2) of this section.

(1) The actual monthly HAP ABA emissions shall be determined using Equation 4:

$$E_{\text{actual}} = E_{\text{unc}} - \text{HAPABA}_{\text{recovered}} \quad (\text{Equation 4})$$

Where:

$E_{\text{actual}}$  = Actual HAP ABA emissions after control, pounds/month.

$E_{\text{unc}}$  = Uncontrolled HAP ABA emissions, pounds/month, determined in accordance with paragraph (b)(1) of this section.

$\text{HAPABA}_{\text{recovered}}$  = HAP ABA recovered, pounds/month, determined in accordance with paragraph (e)(2) of this section.

(2) The amount of HAP ABA recovered shall be determined in accordance with § 63.1303(c).

**§ 63.1298 Standards for slabstock flexible polyurethane foam production—HAP emissions from equipment cleaning.**

Each owner or operator of a new or existing slabstock affected source complying with the emission point specific limitation option provided in § 63.1293(a)(1) shall not use a HAP or a HAP-based material as an equipment cleaner.

**§ 63.1299 Standards for slabstock flexible polyurethane foam production—source-wide emission limitation.**

Each owner or operator of a new or existing slabstock affected source complying with the source-wide emission limitation option provided in § 63.1293(b) shall control HAP ABA storage and equipment leak emissions, HAP ABA emissions from the produc-

tion line, and equipment cleaning HAP emissions in accordance with the provisions in this section. Compliance shall be determined on a rolling annual basis in accordance with paragraph (a) of this section. As an alternative, the owner or operator can determine compliance monthly, as described in paragraph (b) of this section.

(a) *Rolling annual compliance.* Under the rolling annual compliance provisions, actual source-wide HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions are compared to allowable source-wide emissions for each consecutive 12-month period. The allowable source-wide HAP emission level is calculated based on the production for the 12-month period, resulting in a potentially different allowable level for each 12-month period. While compliance is on an annual basis, compliance shall be determined monthly for the preceding 12-month period. The actual source-wide HAP emission level for a consecutive 12-month period shall be determined using the procedures in paragraphs (c)(1) through (4) of this section, unless a recovery device is used. Slabstock foam production

sources using recovery devices shall determine actual source-wide HAP emissions in accordance with paragraph (e) of this section. The allowable HAP emission level for a consecutive 12-month period shall be determined using the procedures in paragraph (d) of this section.

(b) *Monthly compliance alternative.* As an alternative to determining compliance on a rolling annual basis, an owner or operator can determine compliance by comparing actual HAP emissions to allowable HAP emissions for each month. The allowable source-wide emission level is calculated based on the production for the month, resulting in a potentially different allowable level each month. The actual monthly emission level shall be determined using the procedures in paragraphs (c)(1) through (3) of this section, unless a recovery device is used. Slabstock foam production sources

using recovery devices shall determine actual source-wide HAP emissions in accordance with paragraph (e) of this section. The allowable monthly HAP ABA emission level shall be determined in accordance with Equation 6.

(c) *Procedures for determining actual source-wide HAP emissions.* The actual source-wide HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions shall be determined using the procedures in this section. Actual source-wide HAP emissions for each individual month shall be determined using the procedures specified in paragraphs (c)(1) through (3) of this section.

(1) Actual source-wide HAP emissions for a month shall be determined using Equation 5 and the information determined in accordance with paragraphs (c)(2) and (3) of this section.

$$\text{PWE}_{\text{actual}} = \sum_i^n (\text{ST}_{i, \text{begin}} - \text{ST}_{i, \text{end}} + \text{ADD}_i) \quad (\text{Equation 5})$$

Where:

$\text{PWE}_{\text{actual}}$  = Actual source-wide HAP ABA and equipment cleaning HAP emissions for a month, pounds/month.

$n$  = Number of HAP ABA storage vessels.

$\text{ST}_{i, \text{begin}}$  = Amount of HAP ABA in storage vessel  $i$  at the beginning of the month, pounds, determined in accordance with the procedures listed in paragraph (c)(2) of this section.

$\text{ST}_{i, \text{end}}$  = Amount of HAP ABA in storage vessel  $i$  at the end of the month, pounds, determined in accordance with the procedures listed in paragraph (c)(2) of this section.

$\text{ADD}_i$  = Amount of HAP ABA added to storage vessel  $i$  during the month, pounds, determined in accordance with the procedures listed in paragraph (c)(3) of this section.

(2) The amount of HAP ABA in a storage vessel shall be determined by monitoring the HAP ABA level in the storage vessel in accordance with § 63.1303(d).

(3) The amount of HAP ABA added to a storage vessel for a given month shall

be the sum of the amounts of all individual HAP ABA deliveries that occur during the month. The amount of each individual HAP ABA delivery shall be determined in accordance with § 63.1303(e).

(4) Actual source-wide HAP emissions for each consecutive 12-month period shall be calculated as the sum of actual monthly source-wide HAP emissions for each of the individual 12 months in the period, calculated in accordance with paragraphs (c) (1) through (3) of this section.

(d) Allowable source-wide HAP emissions for a consecutive 12-month period shall be calculated as the sum of allowable monthly source-wide HAP emissions for each of the individual 12 months in the period. Allowable source-wide HAP emissions for each individual month shall be calculated using Equation 6.

$$\text{emiss}_{\text{allow, month}} = \sum_{j=1}^m \left( \sum_{i=1}^n \frac{(\text{limit}_i) (\text{polyol}_i)}{100} \right) j \quad (\text{Equation 6})$$

Where:

$\text{emiss}_{\text{allow, month}}$  = Allowable HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions from the slabstock foam production source for the month, pounds.

$m$  = Number of slabstock foam production lines.

$\text{polyol}_i$  = Amount of polyol used in the month in the production of foam grade  $i$  on foam production line  $j$ , determined in accordance with § 63.1303(b), pounds.

$n$  = Number of foam grades produced in the month on foam production line  $j$ .

$\text{limit}_i$  = HAP ABA formulation limit for foam grade  $i$ , parts HAP ABA per 100 parts polyol. The HAP ABA formulation limits are determined in accordance with § 63.1297(d).

(e) *Compliance using recovery devices.*

If a recovery device is used to comply with paragraphs (a) or (b) of this section, the owner or operator shall determine the allowable source-wide HAP emissions for each month using Equation 6 in paragraph (d) of this section, and the actual monthly source-wide HAP emissions in accordance with paragraph (e)(1) of this section. The owner or operator shall also comply with the provisions of paragraph (e)(2) of this section.

(1) Actual monthly source-wide HAP emissions shall be determined using Equation 7.

$$E_{\text{actual}} = E_{\text{unc}} - \text{HAPABA}_{\text{recovered}} \quad (\text{Equation 7})$$

Where:

$E_{\text{actual}}$  = Actual source-wide HAP emissions after control, pounds/month.

$E_{\text{unc}}$  = Uncontrolled source-wide HAP emissions, pounds/month, determined in accordance with paragraph (c) (1) through (3) of this section.

$\text{HAPABA}_{\text{recovered}}$  = HAP ABA recovered, pounds/month, determined in accordance with paragraph (e)(2) of this section.

(2) The amount of HAP ABA recovered shall be determined in accordance with § 63.1303(c).

**§ 63.1300 Standards for molded flexible polyurethane foam production.**

Each owner or operator of a new or existing molded affected source shall comply with the provisions in paragraphs (a) and (b) of this section.

(a) A HAP or HAP-based material shall not be used as an equipment cleaner to flush the mixhead, nor shall it be used elsewhere as an equipment cleaner in a molded flexible polyurethane foam process, with the following exception. Diisocyanates may be used to flush the mixhead and associated piping during periods of startup

or maintenance, provided that the diisocyanate compounds are contained in a closed-loop system and are re-used in production.

(b) A HAP-based mold release agent shall not be used in a molded flexible polyurethane foam source process.

**§ 63.1301 Standards for rebond foam production.**

Each owner or operator of a new or existing rebond foam affected source shall comply with the provisions in paragraphs (a) and (b) of this section.

(a) A HAP or HAP-based material shall not be used as an equipment cleaner at a rebond foam source.

(b) A HAP-based mold release agent shall not be used in a rebond foam source.

**§ 63.1302 Applicability of subpart A requirements.**

The owner or operator of an affected source shall comply with the applicable requirements of subpart A of this part, as specified in Table 2 of this subpart.