

General provisions reference	Applicable to subpart HHH	Explanation
§ 63.11(a) through (e)	Yes.	
§ 63.12(a) through (c)	Yes.	
§ 63.13(a) through (c)	Yes.	
§ 63.14(a) through (q)	Yes.	
§ 63.15(a) and (b)	Yes.	

[77 FR 49597, Aug. 16, 2012]

Subpart III—National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production

SOURCE: 63 FR 53996, Oct. 7, 1998, unless otherwise noted.

§ 63.1290 Applicability.

(a) The provisions of this subpart apply to each new and existing flexible polyurethane foam or rebond foam process that meets the criteria listed in paragraphs (a)(1) through (3) of this section.

- (1) Produces flexible polyurethane or rebond foam;
- (2) Emits a HAP, except as provided in paragraph (c)(2) of this section; and
- (3) Is located at a plant site that is a major source, as defined in § 63.2 of subpart A.

(b) For the purpose of this subpart, an affected source includes all processes meeting the criteria in paragraphs (a)(1) through (a)(3) of this section that are located at a contiguous plant site, with the exception of those processes listed in paragraph (c) of this section.

(c) A process meeting one of the following criteria listed in paragraphs (c)(1) through (3) of this section shall not be subject to the provisions of this subpart:

- (1) A process exclusively dedicated to the fabrication of flexible polyurethane foam;
- (2) A research and development process; or
- (3) A slabstock flexible polyurethane foam process at a plant site where the total amount of HAP, excluding diisocyanate reactants, used for slabstock foam production and foam fabrication is less than or equal to five tons per year, provided that slabstock foam production and foam fabrication processes are the only processes at the plant site that emit HAP. The amount of non-diisocyanate HAP used, HAP_{used}, shall be calculated using Equation 1. Owners or operators of slabstock foam processes exempt from the regulation in accordance with this paragraph shall maintain records to verify that total non-diisocyanate HAP use at the plant site is less than 5 tons per year (4.5 megagrams per year).

$$HAP_{used} = \left[\sum_{i=1}^m (VOL_{ABA, i})(D_{ABA, i}) + \sum_{j=1}^n (VOL_{clean, j})(D_{clean, j})(WT_{HAPclean, j}) + \sum_{k=1}^o (VOL_{adh, k})(D_{adh, k})(WT_{HAPadh, k}) \right] \div 2000$$

(Equation 1)

Where,

- HAP_{used} = amount of HAP, excluding diisocyanate reactants, used at the plant site for slabstock foam production and foam fabrication, tons per year
- VOL_{ABA, i} = volume of HAP ABA i used at the facility, gallons per year
- D_{ABA, i} = density of HAP ABA i, pounds per gallon
- m = number of HAP ABAs used

- VOL_{clean, j} = volume of HAP used as an equipment cleaner, gallons per year
- D_{clean, j} = density of HAP equipment cleaner j, pounds per gallon
- WT_{HAPclean, k} = HAP content of equipment cleaner j, weight percent
- n = number of HAP equipment cleaners used
- VOL_{adh, k} = volume of adhesive k, gallons per year
- D_{adh, k} = density of adhesive k, pounds per gallon

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$WT_{\text{HAPadh, k}}$ = HAP content of adhesive k, weight percent
o = number of adhesives used

§ 63.1291 Compliance schedule.

(a) Existing affected sources shall be in compliance with all provisions of this subpart no later than October 8, 2001.

(b) New or reconstructed affected sources shall be in compliance with all provisions of this subpart upon initial startup.

§ 63.1292 Definitions.

All terms used in this subpart shall have the meaning given them in the Act, in subpart A of this part, and in this section. If a term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Auxiliary blowing agent, or ABA, means a low-boiling point liquid added to assist foaming by generating gas beyond that resulting from the isocyanate-water reaction.

Breakthrough means that point in the adsorption step when the mass transfer zone (i.e., the section of the carbon bed where the HAP is removed from the carrier gas stream) first reaches the carbon bed outlet as the mass transfer zone moves down the bed in the direction of flow. The breakthrough point is characterized by the beginning of a sharp increase in the outlet HAP or organic compound concentration.

Calibrate means to verify the accuracy of a measurement device against a known standard. For the purpose of this subpart, there are two levels of calibration. The initial calibration includes the verification of the accuracy of the device over the entire operating range of the device. Subsequent calibrations can be conducted for a point or several points in a limited range of operation that represents the most common operation of the device.

Canned motor pump means a pump with interconnected cavity housings, motor rotors, and pump casing. In a canned motor pump, the motor bearings run in the process liquid and all seals are eliminated.

Carbon adsorption system means a system consisting of a tank or container that contains a specific quantity of ac-

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tivated carbon. For the purposes of this subpart, a carbon adsorption system is used as a control device for storage vessels. Typically, the spent carbon bed does not undergo regeneration, but is replaced.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered to be connectors for the purposes of this subpart.

Cured foam means flexible polyurethane foam with fully developed physical properties. A period of 12 to 24 hours from pour is typically required to completely cure foam, although mechanical or other devices are sometimes used to accelerate the curing process.

Curing area means the area in a slabstock foam production facility where foam buns are allowed to fully develop physical properties.

Diaphragm pump means a pump where the driving member is a flexible diaphragm made of metal, rubber, or plastic. In a diaphragm pump, there is no packing or seals that are exposed to the process liquid.

Diisocyanate means a compound containing two isocyanate groups per molecule. The most common diisocyanate compounds used in the flexible polyurethane foam industry are toluene diisocyanate (TDI) and methylene diphenyl diisocyanate (MDI).

Flexible polyurethane foam means a flexible cellular polymer containing urea and carbamate linkages in the chain backbone produced by reacting a diisocyanate, polyol, and water. Flexible polyurethane foams are open-celled, permit the passage of air through the foam, and possess the strength and flexibility to allow repeated distortion or compression under stress with essentially complete recovery upon removal of the stress.

Flexible polyurethane foam process means the equipment used to produce a flexible polyurethane foam product. For the purpose of this subpart, the flexible polyurethane foam process includes raw material storage; production equipment and associated piping,