

Response: Our determination that the MACT floor for loop slitter adhesive use is no HAP-based adhesives makes the use of a numerical or technology-based emission limitation inappropriate.

Although it may be possible to greatly reduce HAP emissions through use of technology, we believe that elimination of the use of HAP-based adhesives in loop slitter operations is required by section 112(d)(3) of the CAA because of the number of facilities using no HAP-based adhesives in their loop slitter operations. Accordingly, no changes were made for the final rule with regard to this issue.

Comment: Comments were received encouraging us to regulate non-slitter adhesive use applications in order to control emissions of methylene chloride. The commenter asserted that many major source facilities are still using methylene chloride-based adhesives in non-loop slitter applications.

Response: In the preamble to the proposed rule, we specifically requested comments on this issue. We stated that if comments demonstrated that "there are non-slitter adhesive sources using HAP-based adhesives that are located on the site of a major source, we would retain them in the source category and treat them as a third subcategory." Based on available information, we found no non-slitters on sites of major sources. Thus, there is no basis to retain non-slitter adhesive use sources in this category. We have listed flexible foam fabrication operations as an area source category for further scrutiny and will address the emissions from area sources under section 112(k) of the CAA.

Comment: Several comments were received expressing concerns regarding the adhesives being used as alternatives to HAP-based adhesives, for both loop slitter and non-slitter adhesive applications. Some commenters mentioned that n-propyl bromide has been the subject of a number of "substantial risk" notifications under the Toxic Substances Control Act and is also the subject of toxicity testing under the National Toxicology Program, and urged us to consider regulating n-propyl bromide emissions.

Response: We are aware of this situation, but have no authority under section 112 to regulate n-propyl bromide since it is not currently listed as a HAP.

Comment: Another commenter asked us to investigate and identify the secondary air impacts of HAP or volatile organic compounds (VOC) from the use of the adhesives being used as alternatives to methylene chloride. If they emit VOC, the commenter

recommended that we regulate those emissions so as not to exacerbate local efforts to comply with other air pollution regulations.

Response: The NESHAP for foam fabrication operations protects air quality and promotes the public health by reducing emissions of some of the HAP listed in section 112(b)(1) of the CAA. The mandate for the NESHAP program does not extend to control of VOC (unless they are HAP). Additionally, VOC emissions are addressed elsewhere in the CAA, both in section 110 which addresses State implementation plans for States with ozone nonattainment areas under the national ambient air quality standards; and in section 111, which includes new source performance standards. Moreover, the current record does not indicate that there are any significant secondary air impacts (*i.e.*, increased emissions of other HAP or VOC) from the use of alternatives to methylene chloride. Thus, the Agency finds that the investigation requested by the commenter is unwarranted. We believe that the reporting requirements that were proposed for loop slitter facilities are adequate, and they remain unchanged for the final rule.

C. What Issues Were Raised Regarding Flame Lamination Sources?

Comment: One commenter asserted that the proposed MACT for existing flame lamination sources (no additional control) is not the maximum degree of HAP reduction that could be achieved and requested that MACT for these sources be based on "the performance of the best two facilities," excluding consideration of uncontrolled sources.

Response: We are required to calculate the MACT floor for existing sources based on the central tendency of the emission limitation achieved by the best performing five major sources for a subcategory with less than 30 major sources (such as flame lamination). Evaluation of only the two best performing sources, as requested by the commenter, is not consistent with this statutory requirement.

The data for existing flame lamination sources that were available during the development of the proposed rule indicated that two of the top five major sources control HAP emissions using a scrubber and three do not control HAP emissions. We chose not to use the mean as the measure of central tendency because it would result in a MACT floor that does not represent the performance of an actual control device. In this case, using the median or the mode resulted in the same MACT floor (no additional control).

In addition to controls, we also investigated the possibility that materials substitution or work practice standards could represent the MACT floor.

The flame lamination of any foam generates HAP emissions, most notably HCN and TDI. These compounds are present in the foam as a result of the polyurethane foam manufacturing process, which is regulated under separate MACT standards. Changing the use of these compounds would change the inherent properties of the foam and, thus, we rejected this raw material substitution as a potential MACT floor control strategy.

In addition, the flame lamination of foams containing chlorinated fire retardants also results in emission of the HAP HCl. The frequency of use of chlorinated fire retardant foams varies considerably from one facility to another, and may also vary over time at any single facility. Although some facilities do not use fire retardant foams at all, most use them some of the time. The fire retardancy is a necessary characteristic of the foam where the customer requires fire retardancy as a product specification, *e.g.*, foam in automobiles and bedding.

The top two facilities on our list stated that they laminated fire retardant foam approximately 30 percent of the time for the years the data were gathered. As product mix and customer demands change, the percent of fire retardant foam flame laminated at a facility can vary considerably. Because there is no clear subdivision of the industry between facilities that use fire retardant foams and those that do not, we deemed any further subdivision of the industry because of this issue to be unreasonable.

Although there may be non-chlorinated fire retardant foams available to flame laminators, they are not currently in use by any of the lowest-emitting five flame lamination facilities. Thus, we determined that product substitution does not represent the MACT floor for the flame lamination subcategory.

We also considered the possibility that the MACT floor might be represented by work practices. The nature of the flame lamination process does not lend itself to any typical work practices used to minimize HAP emissions. There are no emissions related to transport and storage of raw materials, or to cleaning of the equipment, and there is no HAP-containing waste. In fact, the HAP emissions are created during the process by the physical act of scorching the foam. The scorching makes the foam