

- A. Executive Order 12866, Regulatory Planning and Review
- B. Paperwork Reduction Act
- C. Regulatory Flexibility Analysis
- D. Unfunded Mandates Reform Act
- E. Executive Order 13132, Federalism
- F. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
- G. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks
- H. Executive Order 13211, Actions that Significantly Affect Energy Supply, Distribution, or Use
- I. National Technology Transfer and Advancement Act
- J. Congressional Review Act

I. Introduction

A. What Is the Purpose of NESHAP?

The purpose of the final NESHAP is to protect the public health by reducing emissions of HAP from Reinforced Plastic Composite Manufacturing facilities.

B. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Reinforced Plastic Composites Production was included on the initial list of source categories published on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit 10 tpy or more of any one HAP or 25 tpy or more of any combination of HAP.

The CAA requires NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP. This concept appears in section 112(d)(3) of the CAA. For new sources, the MACT floor cannot be less stringent than the HAP emissions control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average HAP emissions limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the HAP emissions

reductions, any non-air quality health and environmental impacts, and energy requirements.

C. What Processes and Operations Are Included in the Reinforced Plastic Composites Production Source Category?

The Reinforced Plastic Composites Production source category involves the production of plastic products from cross-linking resins, usually in combination with reinforcing materials and inorganic fillers. These products may have an outer surface produced with a styrene-containing gel coat. The production of products that do not contain reinforcing materials is also included in this category, as well as the production of intermediate compounds that are later used to make the final plastic products. These non-reinforced products were included because they are produced using the same types of resins, have similar HAP emissions characteristics, and would use similar HAP emissions controls. This source category is limited to those resins and gel coats which contain styrene, either by itself or with a combination of other monomers or solvents.

There are a wide variety of operations that use styrene-containing resins to make thermoset plastics. Such manufacturing operations include manual resin application, mechanical resin application, filament application, gel coat application, compression/injection molding, resin transfer molding, centrifugal casting, continuous lamination/casting, polymer casting, pultrusion, bulk molding compound (BMC) manufacturing, and sheet molding compound (SMC) manufacturing. There are also ancillary operations such as cleaning, mixing, repair, and HAP-containing materials storage, that occur in conjunction with these manufacturing operations. Many facilities will use multiple operations in manufacturing their products.

This source category also includes some repair operations that take place at a manufacturing facility, such as repairs of parts or products that are manufactured at the same facility that must be repaired due to defects or damage that occur during manufacturing, or repairs of parts that were originally manufactured at that location and have been returned for repair due to defects in the original manufacture or damage in shipment. No other types of repair operations are included in this source category. Facilities that perform non-routine manufacture of reinforced plastic composites parts solely to replace parts of a reinforced plastic composite

product that has been in use are not considered to be manufacturing facilities, and repair operations at these types of facilities are not part of this source category. See § 63.5935 of the final rule for the definition of non-routine manufacture. We believe that repair operations that are collocated with manufacturing operations that originally produce the reinforced plastic composites being repaired use the same materials as the manufacturing processes. Repair operations that are not collocated may use different materials and application techniques.

II. Summary of the Final NESHAP

A. What Source Categories and Subcategories Are Affected by the Final NESHAP?

Today's final rule applies to the Reinforced Plastic Composites Production source category. We developed subcategories based on size (*i.e.*, tpy of HAP emitted) in defining the new source MACT floors. These subcategories are sources that emit 100 tpy or more from open molding, pultrusion, centrifugal casting, continuous lamination/casting, SMC and BMC manufacturing, and mixing operations; and all other new sources. The new source MACT floors incorporate add-on controls for sources in the first subcategory, except for facilities producing large parts, and pollution prevention for other new sources.

The floors for existing sources are mainly based on pollution prevention, not add-on controls. Where floors are based mainly on pollution-prevention control techniques, we did not subcategorize by size. However, we did segregate existing sources by resin application technique, resin type, and final products, and developed separate floors for each process/product grouping.

B. What Are the Primary Sources of HAP Emissions and What Are the Emissions?

The primary source of HAP emissions from the Reinforced Plastic Composites Production source category is the evaporation of styrene and other organic liquid HAP contained in the resin during the application and/or curing of the resin. Since styrene participates in the curing reaction, not all of it is emitted. Organic HAP emissions also occur during ancillary operations such as cleaning, mixing, repair, and HAP containing materials storage. Although some gel coats or resins may contain inorganic HAP, such as lead, in resin solids or pigments, we have no data to