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FACT SHEET

PROPOSED AIR TOXICS REGULATION FOR THE FLEXIBLE POLYURETHANE FOAM INDUSTRY

TODAY'S ACTION...

- ◆ The Environmental Protection Agency (EPA) is today issuing a proposed regulation to reduce emissions of toxic air pollutants from the flexible polyurethane foam industry. Air toxics are those pollutants known or suspected of causing cancer or other serious health effects.
- ◆ EPA's proposed regulation covers three distinct segments of this industry: slabstock, molded, and rebond polyurethane foam production. Slabstock foam products are primarily used in furniture seat cushions and bedding materials; molded foam is used in automotive seats, packaging, and a wide range of specialty products; and rebond foam is used as carpet padding and cushions for school bus seats. Air toxics are released from the solvents, equipment cleaners, and other chemicals used in the manufacturing process.
- ◆ EPA developed today's proposal in close partnership with major stakeholders, including industry representatives and state and local agencies.

WHAT ARE THE HEALTH AND ENVIRONMENTAL BENEFITS?

- ◆ EPA's proposed regulation would primarily reduce emissions of the toxic air pollutant, methylene chloride, from the flexible foam industry. Methylene chloride is a pollutant strongly suspected of causing cancer and can have adverse effects on the respiratory and nervous systems. Flexible foam facilities also emit very small amounts of another harmful air pollutant, toluene diisocyanate.
- ◆ Today's proposal would reduce emissions of air toxics, primarily methylene chloride, from slabstock foam producers by about 11,500 tons annually, representing a 68 percent reduction from current levels. The proposed regulation would also reduce air toxic emissions from molded foam production by approximately 2,300 tons

annually, a 98 percent reduction from current levels for affected facilities. EPA believes that all rebond foam manufacturers are already complying with the requirements outlined in the proposal.

- ◆ Today's action demonstrates EPA's commitment to making pollution prevention an integral part of regulatory actions whenever possible. Most of the control requirements outlined in the proposed rule are based on cost-effective pollution prevention techniques. EPA's proposal would eliminate the use of methylene chloride from molded foam and rebond foam production, while providing a variety of options for meeting the regulation's requirements.

BACKGROUND

- ◆ Under the Clean Air Act Amendments of 1990, EPA is required to regulate emissions of 189 listed toxic air pollutants. On July 16, 1992, EPA published a list of industrial source categories that emit one or more of these air toxics. For listed categories of "major" sources (those that emit 10 tons/year or more of a listed pollutant or 25 tons/year or more of a combination of pollutants), the Clean Air Act requires EPA to develop standards that require the application of stringent air pollution controls, known as maximum achievable control technology (MACT).
- ◆ EPA's published list of industry groups (known as "source categories") to be regulated includes major sources that produce flexible polyurethane foam.

WHO WOULD BE AFFECTED BY EPA'S PROPOSED RULE?

- ◆ There are approximately 78 slabstock foam facilities and 98 molded foam facilities nationwide that would be affected by the proposed rule, as well as any similar facilities built in the future. EPA believes that the 21 rebond foam facilities are already in compliance with the proposed emission standards and therefore should not have to implement additional controls.

WHAT DO THE PROPOSED STANDARDS REQUIRE?

Introduction

- ◆ In producing slabstock polyurethane foam, varying amounts of methylene chloride are required depending on the desired characteristics of the foam. For example, larger quantities of methylene chloride help increase a "blowing" action that produces lighter, softer foam. Manufacturers need to produce foam products with a wide range of softness and weight in order to serve varied markets.
- ◆ EPA's proposed rule provides flexibility to industry by providing a choice of compliance options and compliance schedules that promote cost-effective, pollution prevention- based alternatives.
- ◆ The monitoring, recordkeeping, and reporting requirements are outlined in the proposed rule.

Slabstock Foam

- ◆ For slabstock foam production, EPA's proposal sets emissions limits for blowing agents, leaking equipment, storage vessels, and cleaning operations. The foam blowing process constitutes 95 percent of the methylene chloride emissions from slabstock foam production.
- ◆ A unique feature of the proposed slabstock foam requirements would allow facilities to avoid controlling emissions of methylene chloride in equipment cleaning, equipment leaks, and storage, in exchange for using less methylene chloride as a blowing agent. Methylene chloride emissions can be reduced through a variety of pollution prevention techniques or by installing add-on control equipment.

Molded Foam

- ◆ EPA's proposal would require the elimination of methylene chloride-based equipment flushes, foam release agents, and repair adhesives from molded foam production. Relatively low cost waterbased cleaners and equipment substitutions are already used by some facilities to eliminate methylene chloride emissions. Reasonably priced water-based alternatives have also been identified for the other emission areas.

Rebond Foam

- ◆ Today's action would require the elimination of methylene chloride during production and cleaning processes at rebond foam facilities. EPA believes that all rebond foam manufacturers are already complying with the proposed requirements.

HOW MUCH WOULD EPA'S PROPOSED RULE COST?

- ◆ The total annualized cost of the proposed rule for the entire industry is estimated to be roughly \$8 million, most of which would result from slabstock foam production compliance. The actual cost of the rule is expected to be less than \$8 million because slabstock foam producers are likely to choose an emission control alternative, which would eliminate costs for controlling emissions from storage tanks, equipment leaks, and equipment cleaning.

FOR FURTHER INFORMATION...

- ◆ Anyone with a computer and a modem can download the proposed rule from the Clean Air Act Amendments bulletin board (under "Recently Signed Rules") of EPA's Technology Transfer Network (TTN) by calling (919) 541-5742 or internet address <http://ttnwww.rtpnc.epa.gov>. For further information about how to access the TTN, call (919) 541-5384. For further information about the proposal, contact David Svendsgaard of EPA's Office of Air Quality Planning and Standards at (919) 541-2380.