

FINAL RULE AMENDMENTS FOR SEMICONDUCTOR MANUFACTURING

FACT SHEET

TODAY'S ACTION

- On July 15, 2008 the Environmental Protection Agency (EPA) finalized amendments to the 2003 Maximum Achievable Control Technology (MACT) standards for semiconductor manufacturing. EPA established these standards to reduce emissions of air toxics which can cause cancer and other serious health effects.
- The 2003 final rule contained requirements to control organic and inorganic air toxics from separate process vents. However, at least one older facility combines inorganic and organic air toxics into a single vent.
- The final amendments add separate process vent definitions for organic, inorganic and combined air toxics process vent streams. EPA proposed this amendment in October 19, 2006.
- The final amendments also add an emission limit of 14.22 parts per million by volume for combined air toxics process vents. EPA proposed this limit in an April 2, 2008 supplemental proposal.
- These final rule amendments will not affect the annual capital costs of \$22,700 for implementing the final rule.

BACKGROUND

- The Clean Air Act requires EPA to regulate emissions of 187 listed toxic air pollutants. For major sources (those with the potential to emit 10 tons annually or more of a listed pollutant or 25 tons or more of a combination of pollutants), the law requires EPA to develop standards requiring the application of stringent air pollution controls. Those standards are known as "MACT standards," because they require the application of maximum achievable control technology, or MACT.
- The semiconductor manufacturing industry is a subset of the electronics manufacturing industry, and produces integrated circuits or "chips." Integrated circuits combine the functions of discrete electronic devices in a miniature device that can perform complicated electronic functions in a fraction of a second. The electronics manufacturing industry produces devices such as computers, appliances, radios, CD players, and other finished goods that incorporate these integrated circuits.
- EPA published a national rule to limit emissions of toxic air pollutants from these operations in 2003.

- On October 19, 2006, EPA published proposed amendments in the Federal Register to add separate process vent definitions for organic, inorganic, and combined air toxics process vent streams and would add emissions control requirements for combined air toxics process vents at new sources.
- On April 2, 2008 EPA proposed supplemental amendments to the October 19, 2006 amendments that would require new and existing combined air toxics process vents achieve a control level of 14.22 parts per million by volume (ppmv), which is the average level of emissions control achieved by the best performing four combined HAP process vents at maximum representative operating conditions.

FOR MORE INFORMATION

- To download the rule from EPA's World Wide Web site, go to the following address: <http://www.epa.gov/ttn/oarpg/new.html>. For more information about today's rule, contact John Schaefer of EPA's Office of Air Quality Planning and Standards at (919) 541-0296.