

## FACT SHEET

### Final Amendments to Air Toxics Standards for Carbon Black Manufacturing Production

#### ACTION

- On November 1, 2021, the U.S. Environmental Protection Agency (EPA) finalized amendments to the 2002 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Carbon Black Manufacturing Production.
- Carbon black production facilities include any facility that produces carbon black by the furnace black process, thermal black process or the acetylene decomposition process. Carbon black is primarily used as a reinforcing agent for rubber, largely utilized in the manufacturing of automotive tires. A carbon black manufacturing process unit is the equipment assembled and connected by hard-piping or duct work that processes raw materials to manufacture, store and transport carbon black. EPA issued the air toxics standards for Carbon Black Manufacturing Production on July 12, 2002. The rule established emission limits for main unit filter process vents.
- Following a residual risk and technology review conducted in accordance with the Clean Air Act (CAA), EPA determined that risks from the source category are acceptable with an ample margin of safety.
- With this action EPA is finalizing rule amendments to:
  - Broaden the existing emissions limit to account for unregulated process vents;
  - Revise requirements for periods of startup, shutdown and malfunction to be consistent with recent court decisions;
  - Require an annual tune-up for boilers and process heaters; and
  - Require electronic reporting of performance test results.
- EPA also performed a review of the 2007 Carbon Black Production Area Source NESHAP. We are finalizing no changes as a result of this review.

#### RESIDUAL RISK ASSESSMENT

- The CAA requires EPA to assess the risk remaining after application of the final air toxics emissions standard. This is known as a residual risk assessment.
- The primary hazardous air pollutants (HAP) emitted by these facilities include carbon disulfide, carbon sulfide, lead, mercury and cyanide.
- The inhalation cancer maximum individual risk (MIR) based on actual emissions is less than 1-in-1 million for the Carbon Black Production source category.
- An MIR of 1-in-1 million implies that up to one person out of 1 million equally exposed people could contract cancer if exposed continuously (24 hours per day) to the specific concentration over 70 years (an assumed lifetime). This would be in addition to cancer cases that would normally occur in 1 million unexposed people.
- Additional health risk screenings and ecological risk screenings do not indicate levels of concern.

- Based on the completed risk assessment and available health information, EPA determined risks from the Carbon Black Production source category are acceptable and provide an ample margin of safety to protect public health.

## **TECHNOLOGY REVIEW**

- The CAA requires EPA to assess, review and revise air toxics standards, as necessary, taking into account developments in practices, processes and control technologies.
- The technology review of the standards for Carbon Black production facilities did not identify any developments that would further reduce hazardous air pollutant emissions beyond the original NESHAP.

## **BACKGROUND**

- The CAA requires EPA to regulate toxic air pollutants, also known as air toxics, from categories of industrial facilities in two phases.
- The first phase is “technology-based,” where EPA develops standards for controlling the emissions of air toxics from sources in an industry group or “source category.” These maximum achievable control technology (MACT) standards are based on emissions levels that are already being achieved by the best-controlled and lower-emitting sources in an industry.
- Within 8 years of setting the MACT standards, the CAA directs EPA to assess the remaining health risks from each source category to determine whether the MACT standards protect public health with an ample margin of safety and protect against adverse environmental effects. This second phase is a “risk-based” approach called residual risk. Here, EPA must determine whether more health-protective standards are necessary.
- Also, every 8 years after setting MACT standards, the CAA requires EPA to review and revise the standards, if necessary, to account for improvements in air pollution controls and/or prevention.

## **FOR MORE INFORMATION**

- Interested parties can download a copy of the final rule notice from EPA's website at the following address: <https://www.epa.gov/stationary-sources-air-pollution/acetal-resins-acrylic-modacrylic-fibers-carbon-black-hydrogen>.
- Today's action and other background information are also available electronically at <https://www.regulations.gov/>, EPA's electronic public docket and comment system.
  - Materials for this final action can be accessed using Docket ID No. EPA-HQ-OAR-2020-0505.
- For further technical information about the rule, contact Korbin Smith, EPA's Office of Air Quality Planning and Standards, at (919) 541-2416 or [smith.korbin@epa.gov](mailto:smith.korbin@epa.gov).