

# Dry Mechanical Polishing Equipment Emitting One or More of the Plating and Polishing Metal HAP

*Cadmium, Chromium, Lead, Manganese, and Nickel  
Generally Available Control Technology (GACT)  
73 FR 37741, July 1, 2008; as amended at 76 FR 57919, Sept. 19, 2011  
<http://ecfr.gpoaccess.gov/>*

## **Requirements**

The requirements of dry mechanical polishing equipment emitting one (1) or more of the plating and polishing metal HAP are as follows:

1. Operate a system to capture particulate matter (PM) emissions from the dry mechanical polishing process and control emissions using a fabric filter, cartridge or high efficiency particulate air (HEPA) filter.
2. Operate all capture and control devices according to the manufacturer's specifications and operating instructions.
3. Keep the manufacturer's specifications and operating instructions at the facility at all times in a location where they can be easily accessed by the operators.

## **Exclusions**

This regulation exempts the following operations:

- Hard and decorative chromium electroplating
- Chromium anodizing
- Plating and polishing conducted for:
  - Research and development
  - Education
  - Repair of surfaces or equipment
  - Restoration of the original finish
- Dry mechanical polishing prior to plating
- Trace quantities of any one of the five (5) metals

## **Applicable Definitions**

**Capture system** means the collection of components used to capture gases and fumes released from one (1) or more emissions points and then convey the captured gas stream to a control device, as part of a complete control system. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

**Cartridge filter** means a type of control device utilizing perforated metal cartridges containing a pleated paper or non-woven fibrous filter media to remove particulate matter (PM) from a gas stream by sieving and other mechanisms. Cartridge filters can be designed with single use cartridges which are removed and disposed after reaching capacity, or continuous use cartridges which typically are cleaned by means of a pulse-jet mechanism.

**Dry mechanical polishing** means a process used for removing defects from and smoothing the surface of finished metals and formed products after plating or thermal spraying with any of the plating and polishing metal HAP using automatic or manually-operated machines having hard-faced abrasive wheels or belts and where no liquids or fluids are used to trap the removed metal particles. The affected process does not include polishing with use of pastes, liquids, lubricants, or any other added materials.

**Fabric filter** means a type of control device used for collecting particulate matter (PM) by filtering a process exhaust stream through a filter or filter media. A fabric filter is also known as a baghouse.

**High efficiency particulate air (HEPA) filter** means a type of control device using a filter composed of a mat of randomly arranged fibers and is designed to remove at least 99.97 percent of airborne particles that are 0.3 micrometers or larger in diameter.