

# Thermal Spraying Operation Applying 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/>

## **Control Practices**

The following control practices are requirements depending on the type operation present.

- For existing permanent thermal spraying operations with an initial startup date on or before July 1, 2008:
  - Operate a system to capture particulate matter (PM) emissions from the thermal spraying process and control emissions using a water curtain, fabric filter, cartridge or high efficiency particulate air (HEPA) filter.
  - Operate all capture and control devices according to the manufacturer's specifications and instructions.
  - Keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.
- For new permanent thermal spraying operations:
  - Operate a system to capture PM emissions from the thermal spraying process and control emissions using a fabric, cartridge or HEPA filter.
  - Operate all capture and control devices according to the manufacturer's specifications and instructions.
  - Keep the manufacturer's operating instructions at the facility at all times in a location where they can be easily accessed by the operators.
- Temporary thermal spraying operations
  - Document the amount of time the thermal spraying occurs each day, and where it is conducted.

## **Management practices, applicable**

1. Minimize heating without adversely affecting production or part quality.
2. Repair and maintain equipment.
3. Perform good housekeeping including sweeping, vacuuming, and periodic wash-downs as necessary.
4. Minimize spills.
5. Identify opportunities for pollution prevention.

## **Exclusions from this Regulation**

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**

***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.

***New source*** means any affected source for which you commenced construction or reconstruction after March 14, 2008.

***Temporary thermal spraying*** means a thermal spraying operation using or emitting any of the plating and polishing metal HAP and that lasts no more than one (1) hour in duration during any one (1) day and is conducted in situ. Thermal spraying conducted in a dedicated thermal spray booth or structure is not considered to be temporary thermal spraying.

***Thermal spraying*** (also referred to as metal spraying or flame spraying) is a process using or emitting any of the plating and polishing metal HAP in which a metallic coating is applied by projecting heated, molten, or semi-molten metal particles onto a substrate.

***Water curtain*** means a type of control device drawing the exhaust stream through a continuous curtain of moving water to scrub out suspended PM.