

Recently Final Plating/Polishing and Metal Fabrication Rules

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Plating and Polishing (WWWWWW)

- One or more processes including:
 - electrolytic plating and polishing = electroplating (other than chromium), electroforming and electropolishing
 - electroless plating
 - other non-electrolytic metal coating, such as chromate conversion coating and thermal spraying
 - dry mechanical polishing after plating
- Facility uses or has emissions of metal HAPs
 - Cd, Cr, Pb, Mn, Ni

6W Exemptions

- Doesn't apply to
 - subject to Subpart N – chromium MACT
 - R&D
 - educational units
 - thermal spray for surface repair
 - polishing to restore original finish
 - not use materials with >0.1 % Cd, Cr, Pb, Ni, or $>1\%$ Mn

6W Requirements

■ Electrolytic tanks

- use wetting agent/fume suppressant and maintain correct proportion to bath chemistry as make-up chemicals added, OR
- capture and exhaust emissions to controls
 - composite mesh pad
 - packed bed scrubber
 - mesh pad mist eliminator
- cover tank surface
 - batch – 95% surface area
 - continuous – 75% surface area
- management practices

6W Requirements

- Flash electroplating tanks (short term)
 - limit plating to no more than 1 hr/day or 3 min/hr
 - use tank cover for 95% of plating time
- Tanks used short or long term
 - meet either of previous as appropriate to use time
- Tank with cyanide and $\text{pH} \geq 12$
 - measure pH on set up
 - management practices

6W Requirements

- Dry polishing
 - capture PM and control with cartridge, fabric or HEPA filter or equivalent efficiency device
- Thermal Spray
 - Control and management practices
 - New – capture and control using fabric or HEPA filter
 - Existing - capture and control using water curtain, fabric filter or other device w/equivalent control
 - Temporary ops: record time in use, follow management practices

6W Requirements

- Management practices for all covered operations
 - minimize agitation when removing parts
 - maximize dripping solution back into tank
 - optimize design to minimize drag out
 - use tank covers whenever practicable
 - minimize or reduce heating both during and when not in operation
 - regular maintenance of tanks
 - minimize contamination
 - maintain quality control of chemicals
 - good housekeeping

6W Deadlines

- Compliance
 - New (after March 14, 2008) – on FR date
 - Existing – 2 years from FR date
- Initial Notification
 - 120 days after published in FR (~end October, 2008) or after start up for new source
- Notification of Compliance
 - by compliance date (NEW – ASAP!!)
- Annual Compliance Status
 - prepare report every year
 - not required to submit unless deviation during yr

Metal Fabrication and Finishing (XXXXXX)

- Affects 9 industries:
 - electrical and electronics equipment finishing
 - fabricated metal
 - fabricated plate work (boiler shops)
 - fabricated structural metal
 - heating equipment, except electric
 - industrial machinery finishing
 - iron and steel forging
 - primary metals production
 - valves and pipe fittings

6X Affected Operations

- Five production operations at those industries:
 - dry abrasive blasting
 - dry grinding and dry polishing
 - machining
 - painting
 - welding
- If use materials with MFHAP, or metals in elemental form except Pb
 - material contains MFHAP if present in amounts >0.1 % Cd, Cr, Pb, Ni, or >1% Mn
- Standards don't apply if no potential to emit MFHAP
- If affected by 6X, then 6H doesn't apply

6X Requirements

■ Dry Blasting

- enclose or unvented: management practices for minimizing fugitives
 - minimize dust
 - operate equipment according to mfc specs
- vented enclosure: management practices AND capture and direct to filter control
- large parts not enclosed or outdoors – minimize dust; enclose equipment where possible; visual observations for fugitives; don't reuse blast media; switch to low-dust media

■ Visual observations = Method 22

6X Requirements

- Machining
 - management practices
- Grinding and Polishing
 - capture and vent to control
 - management practices
- Welding
 - emission reduction practices
 - process with lower fume generation
 - filler metals, gasses, or other materials with lower fume generation
 - optimize variables (electrode diameter, voltage, amps, angle, shield gas rate, travel speed)

6X Requirements

- Welding continued...
 - Other requirements only if ≥ 2000 lb rod per yr containing MFHAP
 - VE observations
 - start daily
 - if no VE after 10 days, then weekly (5 days operation or one calendar week)
 - if no VE after 4 consecutive weeks, then monthly (21 days operation or one calendar month)
 - if no VE after 3 consecutive months, then quarterly (60 days operation or 3 calendar months)
 - can escalate up to using Method 9 and development of Site Specific Welding Emissions Management Plan if $>20\%$ opacity found
 - similar schedule as M22
 - need VEs $< 20\%$ opacity for 2 consecutive months of monthly testing

6X Requirements

■ Painting

- matches subpart HHHHHH for use of booths, filter system controls, high efficiency spray guns, gun cleaners, and painter training
 - booth and filter DOESN'T apply to structural metal or others painting parts >15 ft not painted in booth or spray room
 - ALL training required within 6 months of FR for new sources, **3 years for existing**
- training = hands on OR in house OR external
- **NO volatile organic HAP limit!! (Proposal)**

6X Deadlines

- **New Sources (on or after April 3, 2008)**
 - Comply by FR date or startup
 - Initial and Compliance Status Report = 120 days after FR date or after startup
- **Existing**
 - Comply AND submit Initial Notification – 3 years after FR date
 - Compliance Notification - 3 years +120 days after FR date
- **Annual Compliance Reports**
 - complete AND submit by January 31st for previous calendar year, including any exceedence reports
 - first year is from compliance due date through December 31st