Surface Coating Rules and the DoD

A Hill AFB Perspective

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Introduction

• DoD Performs Widely Diverse Surface Coating Operations
  – Activities Potentially Regulated by Multiple MACT* Standards
  – Established Compliance Systems Geared Toward Aerospace and Ship MACT Standards

• Multiple Surface Coating MACT Standards at DoD Installations Would Impose:
  Significant Administrative Burden for NO Environmental Benefit!

* MACT – Maximum Achievable Control Technology
Surface Coating MACT Standards
- Promulgated -

- Aerospace Manufacturing and Rework
- Large Appliances
- Metal Coil
- Metal Furniture*
- Paper and Other Web Coatings
- Printing, Coating, and Dyeing of Fabric and Other Textiles*
- Shipbuilding and Ship Repair
- Wood Building Products*
- Wood Furniture

* Final rule signed but not published as of 19 Mar 03
Surface Coating MACT Standards  
- In Development -

• Proposed
  – Auto and Light Duty Truck
  – Metal Can
  – Miscellaneous Metal Parts and Products (MMPP)
  – Plastic Parts and Products (PPP)

• Not Yet Proposed
  – Military MACT (to be formally listed as a new source category in upcoming notice)
Multiple Rule Applicability

Administrative Nightmare!

- Applicability Determination
- Recordkeeping
- Material Authorization and Control
Hill AFB Overview

- Diverse Workload
- ~ 2,500 Potential Air Emission Sources
- 41 Air Emission Source Categories
# Hill AFB Operations

<table>
<thead>
<tr>
<th></th>
<th>F-16</th>
<th>C-130</th>
<th>Aircraft Parts</th>
<th>Nuclear Hardness Testing</th>
<th>Locomotives</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-10 Motor</td>
<td></td>
<td></td>
<td>Motor Generators</td>
<td>Environmental Control Units</td>
<td>Bombing and Strafing</td>
</tr>
<tr>
<td>Jet Engine</td>
<td></td>
<td></td>
<td>Transportation &amp; Handling Equipment</td>
<td>Aerospace Ground Equipment</td>
<td>Aircraft Training Operations</td>
</tr>
<tr>
<td>Testing</td>
<td></td>
<td></td>
<td>ICBM SPO Rocket Motor Static Fires</td>
<td>ICBM Maintenance and Storage</td>
<td>Military Shelters</td>
</tr>
<tr>
<td>ICBM SPO</td>
<td></td>
<td></td>
<td>Rocket Motor Dissection</td>
<td>Mobile Communications</td>
<td>ICBM Test Sites</td>
</tr>
<tr>
<td>Computer</td>
<td></td>
<td></td>
<td>Rocket Motor Dissection</td>
<td>ICBM Maintenance and Storage</td>
<td>Military Shelters</td>
</tr>
<tr>
<td>Tomography;</td>
<td></td>
<td></td>
<td></td>
<td>ICBM Test Sites</td>
<td></td>
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<td>X-Ray</td>
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Hill AFB Scenario

- Coating Activities Are Largely Aerospace-related
  - Base-wide Compliance System Tailored for Aerospace MACT

- Multiple Coating Rules Pose Significant Administrative Impact

- Limits in Rules Vary in Type and Value
  - lb VOHAP* (VOC)/gal coating (Aerospace)
  - lb VOHAP/gal solids (MMPP)
  - lb VOHAP/lb solids (PPP)

- MMPP and PPP Would Require Continuous Averaging

* Volatile Organic Hazardous Air Pollutant
Surface Coating Workloads

- Mixed Workloads Within Shops
- Ammo Cans, Shipping Drums, Aircraft Fuel Tanks, Pylons, Bombs (Inert), Rocket Launchers, Helicopter Gun Systems
- Aerospace Ground Equipment, Aircraft
- Many Materials Shared (Paint Gun Cleaner, Sealants, Primer...)
- All Phases of Rework
Hill AFB Material Tracking

CY 2002 Data for Affected Stock Classes (Solvents and Coatings)

- 6895 MSDSs (73% of Total)
- 355,596 Individual Material Issues (89% of Total)
- Multiple Manufacturers/MSDSs Per NSN (Avg – 1.3; Max – 39)
- Material Issued to 445 Processes
- Many Materials Used in Very Small Quantities (44% materials < 1 gal/yr)
Hill AFB Material Issue Data

CY 2002 Issue Quantities by MSDS
(Markers indicate 50 gal individual and 250 gal cumulative issues.)
Administrative Burden
– Multiple MACT Applicability –

• Extensive Material Tracking
  – Large number of:
    > Materials/MSDSs
    > Material issues
    > Industrial processes
    > Work locations
    > Materials with very low usage
  – Different tracking system required for various rules
  – Each multi-constituent product must be researched
  – Continuous averaging required but compliance determined after-the-fact for MMPP and PPP

cont.
Administrative Burden
– Multiple MACT Applicability (cont.d) –

• Extensive Material Tracking (cont.d)
  – Must discern rule applicability for each material issue
    > Item processed: Aerospace, MMPP, PPP, facility maintenance, …
      • Flight criticality,
      • Substrate of component vs assembly
      • Item configuration
    > Shared materials (paint gun cleaning solvent, caulking tubes…)
    > Surface preparation or rework
    > No conservative assumptions
    > Decision-makers: painters, mechanics

• Compliance Risk Due to Inherent Administrative Errors
• No Corresponding Environmental Benefit
Pursuing Solutions

• HAP* Subcommittee Workgroup Under DoD
  CAA** Services Steering Committee
• Discussions and Installation Visits with DoD and EPA†
• Goals:
  − Develop sound, legally defensible rule
  − Eliminate non value-added administration
  − Maintain DoD mission

* Hazardous Air Pollutant; **Clean Air Act
† Environmental Protection Agency
Pursuing Solutions (cont.d)

• Predominant Activity Provisions in MACT Standards
  – 90% Printing, Coating and Dyeing of Fabric/Textiles
  – 95% Wood Building Products
  – Under consideration for MMPP and PPP
  – Data requested of DoD

• Separate MACT Standard for Military Surface Coating Operations
  – Excluding Aerospace and Ship
  – EPA’s Stated Intent

• Most Stringent MACT Standard or Equivalency Determination
Recent Developments

• Language Developed to Move Military Coating Activities to New MACT Source Category
  – Included in Final Rules:
    > 40 CFR 63 Subpart OOOO
      (Fabric Printing, Coating and Dyeing)
    > 40 CFR 63 Subpart RRRR
      (Metal Furniture)
Recent Developments

• Language Developed to Move Military Coating (cond.t)
  – Exemption to prevent overlapping applicability
    “performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any State).”
  – Not applicable to Aerospace and Ship MACT standards

• New MACT Source Category Posting in Federal Register Expected Shortly
Looking Forward

• Continued Cooperative Working Relationship Between DoD and EPA

• Promulgation Deadline Is Two Years from Source Category Designation

• Characterization of Coating-related Materials and Their Contents
  – HAP Limits
  – Planning

• Characterization of Predominant Activity

• Most Stringent MACT Standard/Equivalency Determinations
Questions?
For One Scenario, Compliance with MMPP Rule Would Cost $750,000 Per Year Annualized (Hill AFB; estimate)
  − Excludes Major Material Substitution Program
  − Excludes Add-on Controls

Increased Risk of Non-compliance

Little to No Effect on Emissions Beyond Existing NESHAP