

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

F-16	C-130	Aircraft Parts	Nuclear Hardness Testing	Locomotives
A-10	Motor Generators	Environmental Control Units	Bombing and Strafing	ICBM Ground Equipment
Jet Engine Testing	Transportation & Handling Equipment	Aerospace Ground Equipment	Aircraft Training Operations	Aircraft Flight Tests
ICBM SPO	Rocket Motor Static Fires	ICBM Maintenance and Storage	Military Shelters	Rocket Motor & Munitions Disposal
Computer Tomography; X-Ray	Rocket Motor Dissection	Mobile Communications	ICBM Test Sites	Materials and Propellant Labs



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**
 - 1b VOHAP* (VOC)/gal coating (Aerospace)
 - 1b VOHAP/gal solids (MMPP)
 - 1b 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)

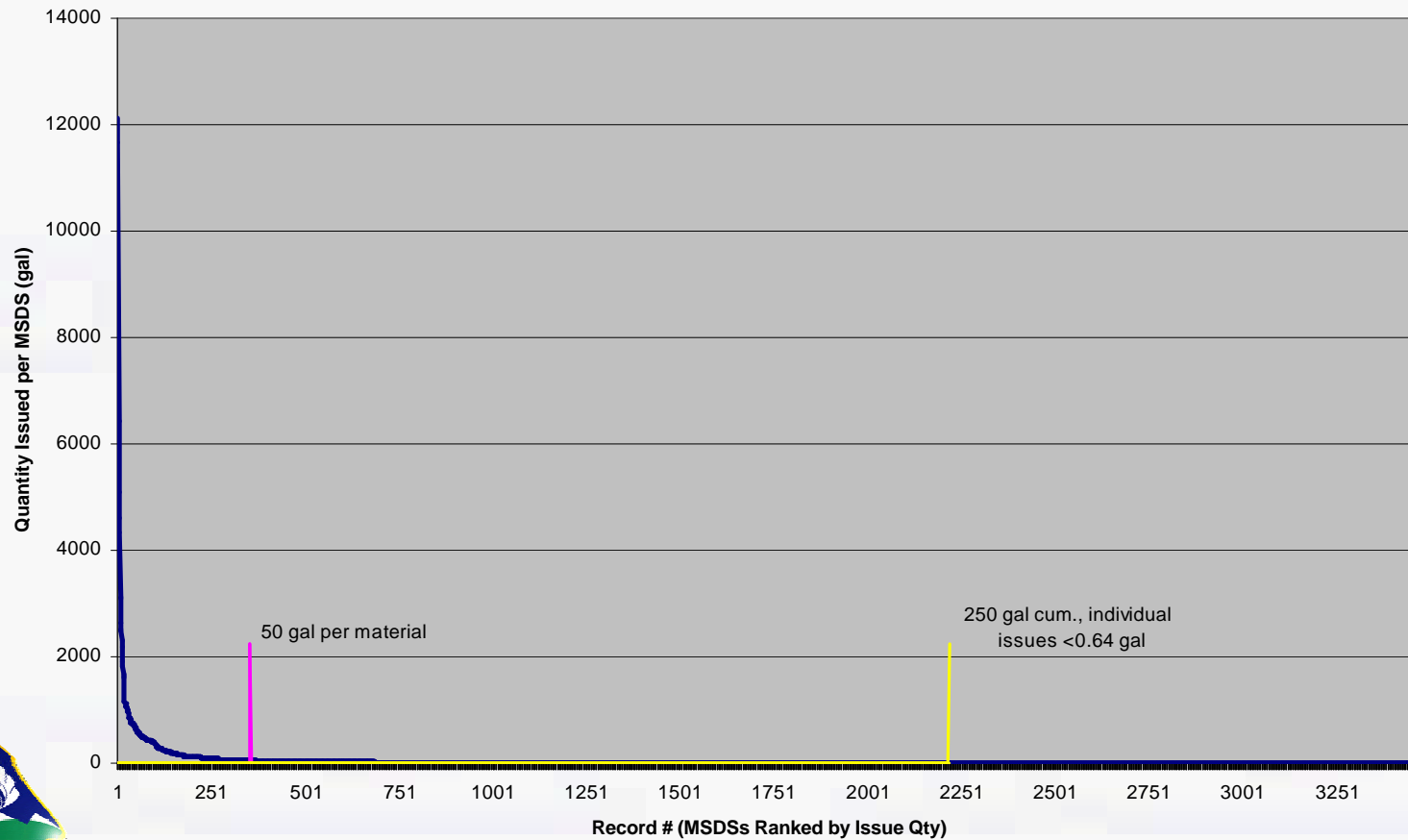
- **6895 MSDSs (73% of Total)**
- **355,596 Individual Material Issues (89% of Total)**
- **Multiple Manufacturers/MSDSs Per NSN
(Avg – 1.3; Max – 39)**
- **Material Issued to 445
Processes**
- **Many Materials Used in
Very Small Quantities
(44% materials < 1 gal/yr)**



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?



Back-up: Compliance Issues

- 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

