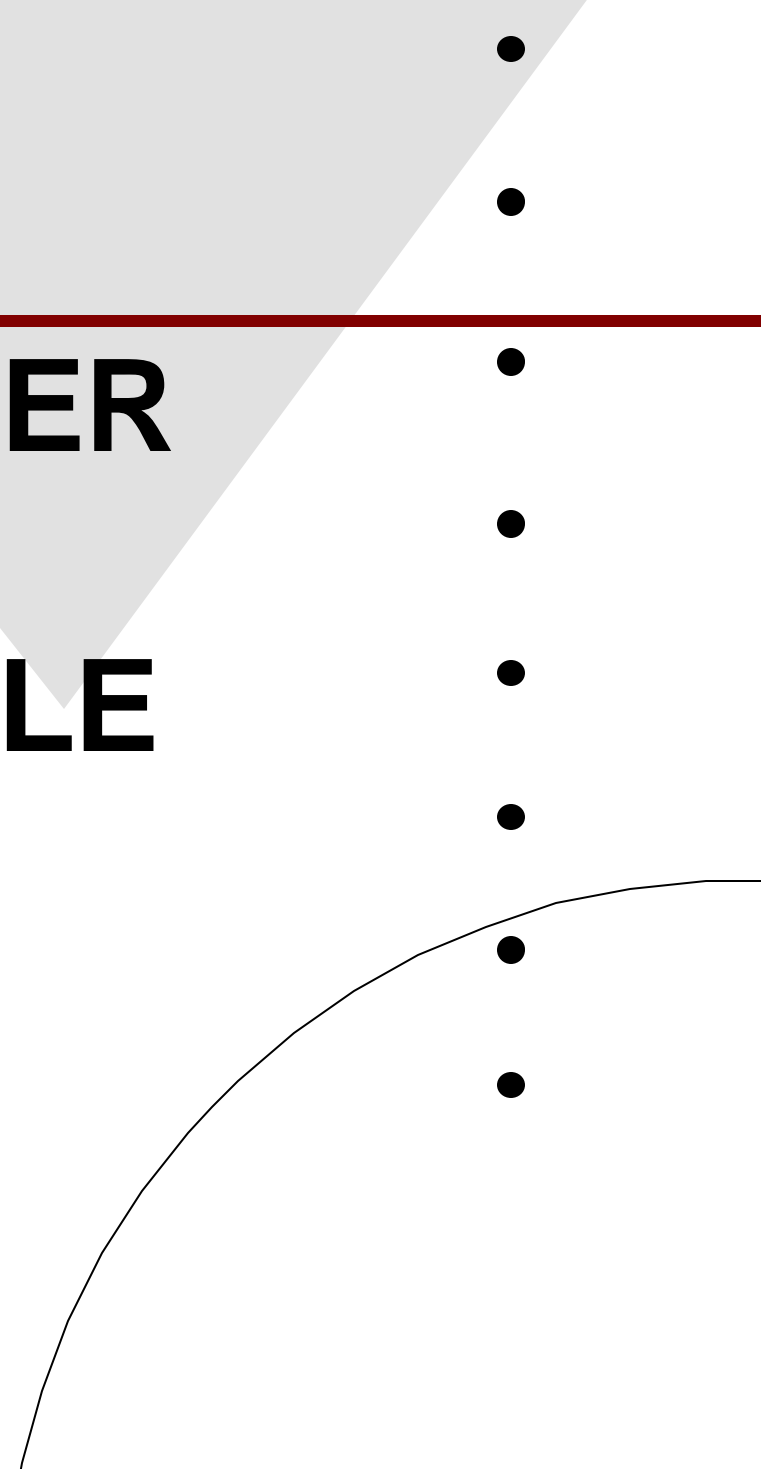
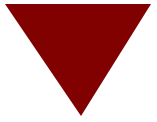




PAPER AND OTHER WEB COATING INTEGRATED RULE

Stakeholder Meeting
June 4, 1998

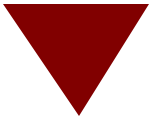




MEETING AGENDA

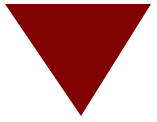
- Introductions and Objectives of Meeting
- Industry Profile
- Survey Data and Analysis
- Lunch Break (1 hour)
- Survey Data and Analysis (cont.)
- Printing vs. Coating Issues
- Section 112(c)(6) Issues for POWC
- Future Site Visits

Questions/Comments



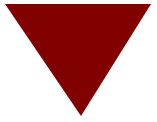
INDUSTRY PROFILE

- Status of Background Information Document (BID) Chapters
- Estimated Number of POWC Facilities
- Data Gathering from Additional Sectors



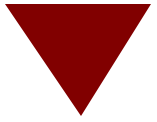
Status of BID Chapters

- Chapter 1: Introduction (*draft*)
- Chapter 2: Industry Profile (*draft*)
- Chapter 3: Emission Control Techniques
(*draft*)
- Chapter 4: Model Plants (*draft by 9/98*)



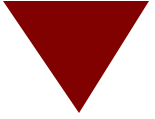
Estimated Number of POWC Facilities

- Trade Organizations
- TRI Database
- Census Data
- 1984 NSPS Value for Coating Facilities and National Paint&Coating Association (NPCA) Growth Factors
- Dun&Bradstreet
- A. F. Lewis



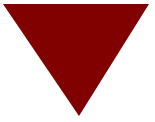
Trade Organizations

- 2,300 estimated POWC facilities from 38 trade organizations
- Overlap between the organizations is expected
- Likely: not all the facilities do coating
- Likely: other organizations are missing



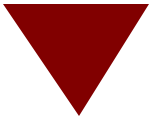
SIC Codes for POWC

- 22 Standard Industrial Codes (SIC's) have been identified for POWC



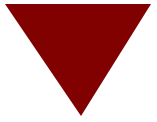
TRI Database (1995)

- 620+ POWC facilities as primary SIC
- Likely to be major sources
- More facilities expected with nonprimary SIC search



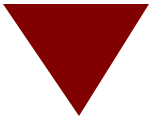
Census Data (1995)

- Almost 12,000 POWC facilities
- High estimate?
- Compare to trade organization lists



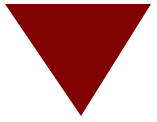
1984 NSPS Value for POWC and NP&CA Growth Factors

- 1,700 facilities for POWC in 1984 (NSPS)
- 2,400 facilities for POWC in 2000?



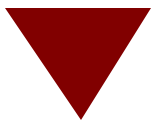
Future Work To Estimate Number of POWC Facilities

- Dun&Bradstreet
- A. F. Lewis

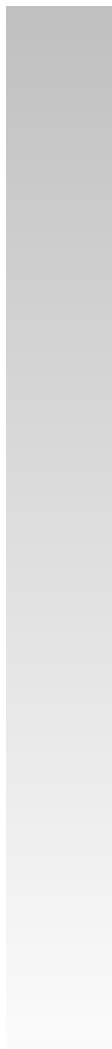


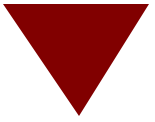
Data Gathering from Additional Sectors

- **Coating Abrasives Manufacturing Institute (CAMI)**
- **Fabric Coating**
- **American Forestry and Paper Association (AF&PA) Specialty Coaters**
- **Tires and Most Rubber Products--not under POWC**



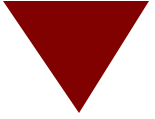
10 Minute Break





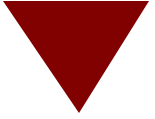
SURVEY DATA AND ANALYSIS

- Pressure Sensitive Tape (PST)
- Flexible Vinyl and Film (Film)
- Industrial and Decorative Laminates (IDL)



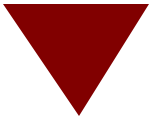
Surveys Used in Data Analysis

- 1) All Surveys
- 2) Major Sources (only)



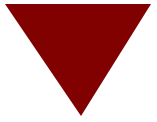
Total Number of Surveys

<i>Group</i>	<i>Number</i>
PST	89
FILM	58
IDL	27
Total	174



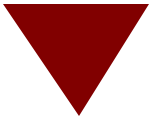
Sources Analyzed In Surveys

- 1) Coating lines only
- 2) "Other HAP Sources"
(excludes coating lines)
- 3) All HAP Sources (coating lines plus
"Other HAP Sources")



"Other HAP Sources" Include

- Laminating
- Hot-melt*
- Extrusion and calendering*
- Storage and mixing/formulation
- Cleaning
- Material transfer
- Wastewater
- Printing
- Other miscellaneous sources on site

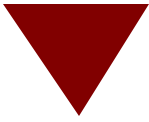


Definition of Terms Used

- %OCE
 - Overall control efficiency (percent)

- Mean
 - Straight average

- Median
 - Middle value from a list of values ranked from high to low.

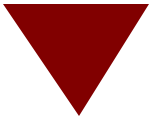


Statistical Conventions Used

- 100th percentile
 - Top controlled source

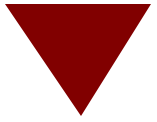
- 0 percentile
 - Lowest controlled source

- Top 12%
 - From the 100th percentile down to but not including the 88th percentile



Statistical Analyses Performed

- Highest value
- Lowest value
- Average value (mean of all values)
- 88 percentile value and top 12%
- Median of top 12%

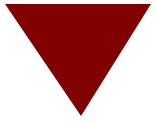


Data Groupings for "All Surveys" Analysis

- Coating Lines Only
 - By line %OCE
 - By facility overall average %OCE

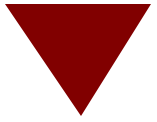
- Other HAP Sources
 - By individual source %OCE
 - By facility average %OCE of sources

(continued)



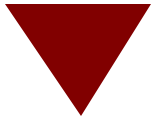
Data Groupings for "All Surveys" Analysis (cont.)

- Total Facility HAP Emissions
 - By %OCE
 - By *LB* HAP emitted per *LB* coating solids
- Total Facility HAP Emissions, for Facilities where %OCE = 0
 - By *LB* HAP emitted per *LB* coating solids



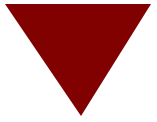
"All Surveys" Data Analysis Results

- 1a) Coating Lines Only, %OCE by coating line
- 1b) Coating Lines Only, %OCE by facility



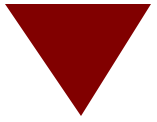
"All Surveys" Data Analysis Results (cont.)

- 2a) Other HAP Sources, %OCE by source
- 2b) Other HAP Sources, %OCE by facility



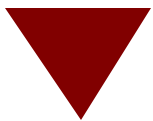
"All Surveys" Data Analysis Results (cont.)

- 3) Total Facility HAP Emissions, %OCE for coating lines *plus* other HAP sources

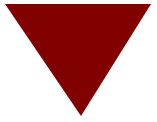


"All Surveys" Data Analysis Results (cont.)

- 4) Total Facility HAP Emissions, *LB* HAP emitted per *LB* coating solids
- 5) Total Facility HAP Emissions--for Facilities where %OCE=0, *LB* HAP emitted per *LB* coating solids

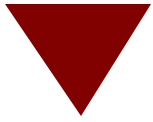


LUNCH BREAK - 1 HOUR



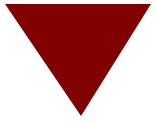
Vinyl Coating

- Survey data showed little difference between HAP (and VOC) control efficiency for vinyl coating compared to other substrates
- State regulations for vinyl are based on EPA's 1977 CTG, where the same %OCE was required for vinyl as for paper and fabric



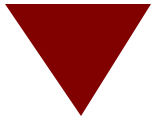
Vinyl Coating (cont.)

- Using all the vinyl surveys (Analysis 4):
 - Vinyl coating was at a higher LB/LB level than the combined database
 - Median of the top 12% LB/LB vinyl was still much lower than PMACT LB/LB



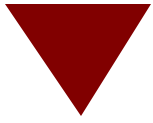
Vinyl Coating (cont.)

- Using only %OCE=0 vinyl facilities (Analysis 5):
 - Median of the top 12% LB/LB was at the same LB/LB level as the combined database
 - Median of the top 12% LB/LB vinyl was also much lower than PMACT LB/LB



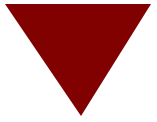
Vinyl Coating (cont.)

- In both the "All Vinyl" and "%OCE=0 Vinyl" analyses:
 - The % of vinyl facilities with lb/lb less than or equal to PMACT was HIGHER than in the combined database.



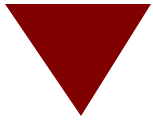
"Major Source" Data Analysis

- Major Sources
 - Emit one HAP ≥ 10 tpy
 - Emit combined HAP ≥ 25 tpy
 - Based on controlled, actual emissions
- Includes "Synthetic Minor" Sources
 - Controlled emissions are not major, but uncontrolled emissions are major



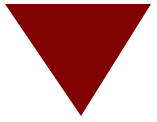
"Major Source" Data Analysis (cont.)

- 85 Major Sources
- 42 Synthetic Minor Sources
- Total = 127 Sources for MACT Floor Determination (73% of database)



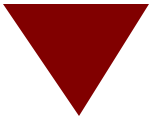
PRINTING VS. COATING ISSUES

- Difficulty in distinguishing printing v. coating operations
- Working with printing industry to characterize emissions
- Printing and Publishing NESHAP
 - POWC to avoid duplication



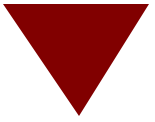
SECTION 112(c)(6) ISSUES FOR POWC

- Source Category Listing published in FR on April 10, 1998 (vol. 63, No. 69, pp. 17838 - 17855)
- Focuses regulatory attention on sources of 90% of emissions of 7 chemicals or families of chemicals (e.g., POM such as naphthalene)
 - Paper coated and laminated packaging



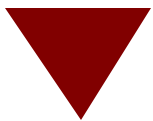
FUTURE SITE VISITS

- May be necessary to investigate specific coating technologies and coating types
- Will help define regulation applicability, new industry segments, and/or potential exemptions/exclusions

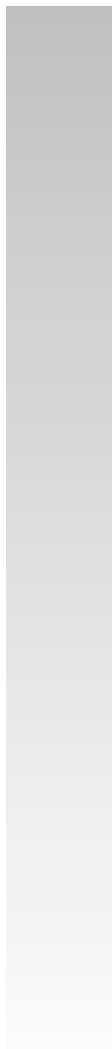


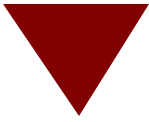
Potential Sites

- Paper manufacturing specialty coaters
- Printing/coating facilities
 - Narrow web
 - Binding
- Others?



QUESTIONS/OPEN





EPA WEB SITE HOME PAGE

- Coating MACT Web Sites:

<http://www.epa.gov/ttn/uatw/coat/coat.html>

- Map/Directions to EPA, and Local Lodging and Restaurants:

<http://www.epa.gov/ttn/uatw/coat/coord>