Air Toxics - Industrial Boiler & Plywood MACT

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Office of Air Permit Programs
Virginia Department of Environmental Quality
Industry Perspective AHFA-

(American Home Furnishings Alliance)

- AHFA developed a working committee
- Working group provided Consultant with required data to compile a MACT Compliance Manual
- Committee, Consultant, and AHFA developed a “Tool Box” for Industry
Industry Perspective AHFA-
(American Home Furnishings Alliance)

- After completion of Manual & Tool Box AHFA scheduled Workshop
  - This required all members to prepare for workshop: 1) Fuels Testing, 2) Boiler Information, 3) Building-stack-elevations data
  - Selected sites/facilities forwarded information to Consultant for a database to conduct both SCREEN3 and ISC3 modeling
Industry Perspective AHFA-
(American Home Furnishings Alliance)

- Workshop Scheduled for all members
  June 8, 2005 High Point NC
  - Boiler MACT Calculations-EMISSIONS
    - TSM FROM FUEL ANALYSIS RESULTS
    - HCL FROM FUEL ANALYSIS RESULTS
    - Hg FROM FUEL ANALYSIS RESULTS
    - Emission Averaging Cal Using Heat Input
    - Emission Averaging Cal Using Steam Generation
Industry Perspective AHFA-
(American Home Furnishings Alliance)

- Performance Testing & Site-Specific Risk Analysis
  - These options have been developed based upon the recent publication of this MACT
  - However, decisions to move in this direction based upon the current timeline are stalled
  - The developed database allowed CH2M Hill to conduct modeling that provided data
Industry Perspective AHFA-
(American Home Furnishings Alliance)

- Modeling and Fuels Testing Data indicated TSM problems with Mn
  - If Boilers run with “Wood Fuel” you may have problems-go to tables & raise stacks
  - If Boilers run with Coal Fuel forget TSM
  - If you run coal develop plan to Performance Test & Model (Most facilities are in Complex Terrain)
Industry Perspective AHFA-
(American Home Furnishings Alliance)

- Plywood MACT
  - AHFA with a In-House Committee developed details of Furniture Companies type of equipment
  - A list was developed, explanation of types of equipment not listed in the table was noted
  - This list included equipment by name that was not on the MACT table.
Industry Perspective AHFA-
(American Home Furnishings Alliance)

- Developed a definitive position paper
  - Position of Committee & AHFA = equipment used in Manufacturing Furniture for the most part are not listed in the table
  - Constructed Letter to EPA Director, Compliance Assessment and Media Programs Division Office of Compliance
  - Received Letter back Confirming Table vs Actual with Equipment Definitions Accepted
In the Works

- Residual Risk
- 8 Years After MACT Promulgation
- Office of Air Quality Programs & Standards Has Lead
- Area Source Standards Under the Air Toxics Strategy (112(k))
Follow-up to Technology Standards
8 Years After a MACT is Promulgated, a Risk-Based Standard Must Be Set if Any Remaining (“Residual”) Risk
EPA Currently Working on This
Coke Oven Standard Promulgated
Also Incorporated into Title V
Plywood & Boiler MACT – Risk Exemptions
School Buses

- Total Number DOC Only 662
- Total Number ECM+DOC 691
- Jurisdiction Completed except:
  - Henrico, Roanoke City, Frederick, Winchester, Rockingham, Harrisonburg School Bus + Transit actively working on program
VIRGINIA PORT AUTHORITY REPORT (Diesel Task Force SAB-AP)

- Report includes Hampton Roads, Portsmouth, Newport News.
- Excludes Richmond & Winchester.
- Data from VPA only for cargo handling equipment = 99%
  emissions from diesel fuel

- Total emissions 2001 were
  - 226 TPY for VOC
  - 824 TPY for CO
  - 1371 TPY for NOx
  - 98 TPY for PM
Table 3: VPA Total Emissions (Tons per Year, TPY)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>2001</th>
<th>2005</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>226</td>
<td>212</td>
<td>-14</td>
</tr>
<tr>
<td>CO</td>
<td>824</td>
<td>805</td>
<td>-19</td>
</tr>
<tr>
<td>NOx</td>
<td>1379</td>
<td>1384</td>
<td>+ 5</td>
</tr>
<tr>
<td>PM</td>
<td>98</td>
<td>92</td>
<td>- 6</td>
</tr>
</tbody>
</table>
## Table 7: Percent Reductions In VPA Criteria Pollutant Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Delta %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>-32</td>
<td>-6</td>
</tr>
<tr>
<td>CO</td>
<td>-30</td>
<td>-2</td>
</tr>
<tr>
<td>NOx</td>
<td>-32</td>
<td>+0.3</td>
</tr>
<tr>
<td>PM</td>
<td>-33</td>
<td>-6</td>
</tr>
</tbody>
</table>
Strategies that had the most impact in reducing fuel costs and emissions:

- Retiring old equipment
- Retrofitting selected old equipment with catalytic converters and diesel particulate filters
- Purchase new equipment
- Minimizing engine idling
VIRGINIA PORT AUTHORITY
REPORT (Diesel Task Force SAB-AP)

- VPA will continue to implement the strategies that have the greatest impact for five years.
- Additional strategies include
  - Use of cleaner lower sulfur diesel fuel
  - Use of alternative fuels
  - Supplying external electric power where possible
VADEQ UPDATE
Completed

- Any questions please contact me at 804-698-4306