



**PM_{2.5} Emissions Inventory
Development**
Washington, DC-MD-VA NAA

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PM_{2.5} Inventories

○ Available Inventory Sources

- MARAMA - Washington, DC & Maryland
- VISTAS – Virginia
- COG - BY 2002 Annual VOC & NO_x Inventories & Documentation (8-Hour Ozone SIP) for DC, MD and VA
- BY 2002 NEI – Annual PM_{2.5}, PM₁₀, VOC, NO_x, NH₃, and SO₂ for DC, MD and VA

PM_{2.5} Inventories

- Available Inventories

| Source | BY 2002 | 2009 Uncontrolled | 2009 Controlled |
|----------|---------|----------------------|--------------------|
| Point | Y | N | Y |
| Area | Y | N | Y |
| Nonroad | Y | N | Y |
| Onroad | Y | N | Y (No data for VA) |
| Document | Y | N | Y |

PM_{2.5} Inventory Requirement

- Base Year 2002 Inventory : due 4/5/08
- PM_{2.5}, PM₁₀, SO₂, NH₃, VOC, NO_x – Actual Annual Inventory (NIF3.0 format) with Documentation



2002 Inventories Development

- States
 - BY 2002 point and area source inventories.
- COG
 - BY 2002 Onroad & nonroad source inventories.



Future Year Inventory Needs

- Uncontrolled & Controlled 2009 inventories
 - Required as part of SIP
 - Benefit calculations for different rules and control measures
- States
 - Uncontrolled and controlled 2009 point source inventories.
- COG
 - Uncontrolled and controlled 2009 Area, onroad & nonroad source inventories.

Determination of “Significant” PM_{2.5} Precursors

○ Significance Finding –

- Need to find “significant” PM_{2.5} precursors in order to control them.
- Need to find significant onroad precursors to establish mobile budgets for them.
- Requires analyses involving emission inventories, PM_{2.5} speciation data, modeling studies, chemical tracer studies, etc.

Determination of “Significant” PM_{2.5} Precursors

- EPA PM_{2.5} Implementation Rule –
 - Direct PM_{2.5} & SO₂ – Significant and must be controlled.
 - NO_x - Significant and must be controlled unless states demonstrate insignificance.
 - VOC & NH₃ - Insignificant and need not be controlled unless states demonstrate significance.

PM_{2.5} Mobile Budgets

- Established in SIP for direct PM_{2.5}, NO_x (unless demonstrated insignificant) and any other onroad precursors as demonstrated significant by EPA/States



Inventory Development Process

- Emissions Inventory Subcommittee
 - What information is needed to determine a finding of significance for precursors?
- Attainment Modeling Subcommittee
 - What information is available to support a finding of significance?
- List of significant precursors by May/June