Collecting Activity Data for Emission Modeling in the State of Mississippi

Mary Evelyn Barnes, B.S.Ch.E., M.S.
MS Dept. of Envr. Quality
Introduction to MS Data Collection Process

- This presentation should help NOVICE users
- Mississippi’s need for modeling
- How to obtain early “victories” in your quest for data
- Problematic data sources
- Use of contractual work for data processing
Mississippi’s Need for Modeling

- Involved with Ozone Transport Assessment Group (OTAG) study
- Two (2) current ozone studies in areas of concern
Arkansas-Tennessee-Mississippi Ozone Study (ATMOS)

Area of Interest for MS is the Memphis, TN MSA
Keys to Early “Victories” for Data Collection

- Use the “Emission Inventory Review Guidelines” from EPA—should be released summer 2001—Bob McConnell, EPA, Region I
- The Guidelines provide data sources and acceptable emission methodology
Keys to Early “Victories” for Data Collection (2)

- **DOCUMENT, DOCUMENT, DOCUMENT!**
- Staff member(s) in charge of the data acquisition should be ORGANIZED-maintain accurate records
- Keep phone conversation records- Will you remember a name and phone # three (3) years from now?
Keys to Early “Victories” for Data Collection (3)

- After you find the data, ask for ELECTRONIC copies
- Make sure to clarify the units on the data (for instance, GTM, gallons of fuel used, etc.)
- Obtain county-level data (not state-level)- the state-level data must be delineated to the county-level by some means
Data Processing

- *If there aren’t ELECTRONIC copies, request hard copies*
- Data entry for hard copies is time-consuming - may want to hire a contractual/student worker for the data entry
- QA/QC data after data entry
Problem Data Sources for MS

- Area Source-Commercial Marine Vessels
- May use the Waterborne Commerce CD-ROM from the U.S. Army Corps of Engr.
- Different states have called us about this
Problem Data Sources for MS(2)

- Non-Road Mobile Source - Rail traffic
- We have obtained some rail info from the Surface Transportation Board - not delineated to the county-level
- Some data is "proprietary"
Problem Data Sources for MS(3)

- Area Source - Wild/Forest Fires
- We acquired data from the MS Forestry Commission for location
U. S. Census Data

- Critical factor for emission calculations - especially when using surrogate factors
- It has been updated and will be available for use soon
Mobile Source Emissions

- This represents a significant portion of emissions in the state of MS
- MOBILE-6 should be released sometime soon (this summer?) - use VMT data
Point Source Emissions

- "In-house” Title-V permitting info-
  Power Plants will be significant
emission sources
- Good news-you should already have this in a dB somewhere
Conclusions

- Plan on having a full-time employee to do activity data acquisition—this is a time-consuming process.
- Focus on early “victories” like on-road mobile source emissions to keep your momentum rolling.
- After you have “finished” collecting data, document the final data sources for the next round.
Contact Information

- Mary Evelyn Barnes, Air Division
  - (601) 961-5745
  - Mary_Barnes@deq.state.ms.us

- Elliott Bickerstaff, Air Division
  - (601) 961-5176
  - ebickers@deq.state.ms.us