Incorporation of State, Local, and Tribal Emission Inventory Data into the 1999 National Emission Inventory (NEI)

Roy Huntley of EPA
Randy Strait, Steve Boone, Donna McKenzie, and Suzanne Connor of E.H. Pechan & Associates
Overview

- Description of the NEI
  - Only Discuss Point, Area Source Inventories for Criteria
- EPA’s Plan for Incorporating State/Local/Tribal Data
- What Really Happened
- Lessons Learned
What is the NEI?

- Comprehensive Inventory Covering Criteria and HAP Pollutants
  - Stationary Point
  - Stationary Area (Non-Point)
  - Onroad Mobile
  - Offroad Mobile

- Created and Maintained by Emission Factor and Inventory Group of EPA
What is the NEI?

continued

- Annual National Inventory by EPA
- S/L/T Input Every 3 Years
  - 1996, 1999, 2002, ...
Version Numbers

- **1999 Version 1.0**
  - Grown from previous year
- **1999 v1.5**
  - Same as v1.0 but with 1999 EGU data
- **1999 v2.0**
  - With EPA EGU Data and Input from S/L/T
EPA’s Plan

- S/L/T Submit 1999 Data to EPA by June 1, 2001
  - NEI Input Format (NIF)
- EPA to integrate S/L/T Data
- Augment Data
  - EGU (SO2 and NOx only)
  - PM
  - NH3
EPA’s Plan
Continued

- Release Draft (v2.0) for Review
  - 4 Months to Review
  - Data Summaries
- Integrate State Comments/Revisions into Draft NEI
- QA Draft NEI
- Release Final NEI v2.0
- Start Over with V3.0
What Really Happened

- **Point**
  - 35 State, 11 Local

- **Area**
  - 14 States, 2 Local, 1 Tribal
S/L/T Submittals of 1999 Emission Inventory Data for NEI v 2

Did not receive from states of DE, GA, AR, ND, SD, IA, AZ, NV, ID, AK, HA, PR, VI, American Samoa or Guam. Received data from TN late and were only able to incorporate Pb data at a gross level.
What Really Happened
Integration

Integration Successful But with Difficulty
- Most used CDX, some problems with transfer

Format Issues
- Incorrect Field Names
- Nonstandard Pollutant Names (NO2, SOx, HAPS)
- Nonstandard Units
- PM issues (PM-FIL vs PM-PRI)
2 Digit County Codes
What Really Happened

Data Submittals

Other Format Issues

- EPA’s QA Software
- Mandatory vs Necessary
- Referential Integrity
- Missing Pollutants
- Lat/Lon in Degrees Minutes Seconds vs Decimal Degrees
- Lat/Lon Transposed
EGU Augmentation
NOx & SO2

- First Looked for a Match on ORIS ID, then Facility ID
  - Difficulties Matching
  - When Matches not Found, EPA Added Facility
  - Some Double-Counting of EGU’s
- Notified S/L/T to Ignore Double Counting of EGU. EPA to fix.
PM Augmentation

- Purpose is to Populate NEI with PM10-PRI and PM2.5-PRI
  - Did not complete in time for Draft
  - Have since developed protocol
- Will Implement in April
- Protocol Uses AP-42 factors for Condensibles
NH3 Augmentation – Pt Sources

- Used S/L/T data when Available
  - 12 S/L/T submitted NH3 data
- Compare S/L/T Emission Total to v1.5
  - When S/L/T < v1.5, the Difference is Allocated to Emission Processes with NOx Emissions.
NH3 Augmentation – Pt Sources

For States that did not Report NH3

- Match Facilities from v1.5 and Add NH3 Emission Record
- If no match found, add NH3 records
- Difficulty Matching Facility ID’s
- Maybe some double-counting
What Really Happened
Review - cont

- Review Went OK?
  - Difficulties/Confusion with Format
    - Submittal Flag Issues (RD/RA, A, D)
    - Some States sent in Whole New Inventories
    - Some of these were accepted
WRH
Review - cont

• Most Comments to us Last Minute
  ■ In Future, Less Review Time?
• States - Pls Don’t Use Version 2.0 for Modeling
• EPA currently (mid-April) Still Incorporating S/L/T Comments
More QA Planned

- Inventory Final Mid-July
  - Used to be June 1
- More QA Planned
  - Compare Emissions to V1.5
  - Density and Emissions Plots
- Version 3.0 Inventory Data Still Due June 1, 2002
Lessons Learned

- Correct Format and Codes
- Facility ID’s
- Invalid SCC & SIC
- Revise NIF regarding Tribal ID
- County Code 777
- Submittal Flags