Making IPM Runs Usable In Regional Modeling

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Background

- IPM run by itself is not usable in regional emissions models. Lacks
  - Coordinates
  - Other pollutants (HC, PM, NH3, CO)
  - Stack Parameters
Integration Steps

- Remove EGU’s from the 2002 Inventory
- Merge Future Year IPM run With Inventory
- Fill In Default and/or Missing Values
Removing EGU’s from Base Year

• Usually done by SCC and SIC code.
  – Startup Generators?
  – Non-Generation processes (heating)?

• Problems with difference between IPM definition of EGU and SCC/SIC based approaches.

• In the end it is a manual process.
Merging Options For Using IPM.

• Total Replacement
• Replace EGUs with fully IPM Generated values. Defaults include:
  – Stack
  – Location
  – Temporal
• Problem: The changes the chemical transport models see are due to changes in locations, stacks, etc and not emissions changes.
Merging Options For Using IPM (2)

• Merging with existing 2002 inventory
• Maintain the scale of original inventory
  – Except for new units
• Merge Matching time consuming laborious process (LADCO 2 months)
• Cross reference needs to point every boiler in IPM to every process (not emission unit) in inventory
Planned and Generic Units

- Planned units are new units that are known to IPM.
- Generic units are generated by the model and conversion process must create new plants to fit demand.
LADCO Reports

- [http://www.ladco.org/tech/emis/round1/ipm.htm](http://www.ladco.org/tech/emis/round1/ipm.htm)
- List of sources removed from 2002 inventory to make room for IPM Data.
- Unused/Planned Sources list
- Draft Result Spreadsheets
- IPM 2009 Base Source Specific Report
Parameters that you may change?

• **Source specific Parameters to change.**
  – Base and future technologies
  – Shutdowns/Startups

• **Global Parameters to changes**
  – Cost of Technology and level of control
  – Fuel Costs
  – Many Others…..
Mark’s Suggestions

• Should start fixing IPM to 2002 inventory cross reference now.
• Start asking what source specific parameters comments will taken on
• Start discussions on global defaults
• Ask how you will model peak and not just average day conditions.