Solvent Emissions Tool

Demonstration for EPA's Emissions Inventory Conference

April 13, 2015

Contents

- Source Categories

- Calculation Methodology Overview

- Emission Factors

- Point Source Subtraction

- Tool Demonstration

Source Categories

| Category Name	SCC	Category Name	SCC
Architectural Coatings	2401001000	Marine coatings	2401080000
Automobile Refinishing	2401005000	Misc. Manufacturing	2401090000
Traffic Paints	2401008000	Industrial Maintenance Coatings	2401100000
Wood and Composition Flat Stock	2401015000	Other Special Purpose Coatings	2401200000
Wood Furniture and Fixtures	2401020000	Cleaning Products: Industrial and Institutional	2415000000
Metal Furniture	2401025000	Graphic Arts	2425000000
Paper, Film and Foil	2401030000	Personal Care Products (Cosmetics and Toiletries)	2460100000
Metal Cans	2401040000	Cleaning Products: Household	2460200000
Misc. Finished Metals	2401050000	Automotive Aftermarket (Transportation: Motor Vehicles)	2460400000
Machinery and Equipment	2401055000	Adhesives and Sealants	2460600000
Appliances	2401060000	FIFRA Regulated Products	246080000
Electronic and Other Electrical Coatings	2401065000	Coatings and Related Products	2460500000
Motor Vehicles	2401070000	Misc. Products	2460900000
Aircraft	2401075000	Dry Cleaning	2420000000
Railroads	2401085000		

Solvent Emissions Calculations

Solvent Tool Calculation Methodology:

- Nonpoint Emissions =

  (Activity * Emission Factor) – Point Source Emissions
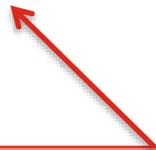
  Population, Employment, or Lane Miles

  Supplied by User

  Note: The Solvent Emissions Tool can perform point source subtraction using activity data if available.

Emission Factors

- Emission factors are based on data on solvent usage from the Freedonia Group
  - Total national-level solvent usage was divided by population, employment, and lane miles to develop emission factors per person, employee, or lane mile, depending on the category

Point Source Subtraction

- Point source emissions are subtracted from total estimated emissions to avoid double counting using the following steps:

  1. **Import the data.** The Solvent Tool includes a user-friendly interface to import point source emissions (or activity) data at the county and/or state level

  2. **Link point source SCCs to nonpoint source SCCs** using a crosswalk included in the tool

  3. **Subtract point source emissions from total state emissions**

     - If both county- and state-level emissions data are provided, subtraction using county-level data is performed first and then gaps are filled with state-level data

  4. **Corrections:**

     - If PS emissions data > Total emissions for a county, then the nonpoint emissions are set to 0 for that county and the difference between total emissions and PS emissions for that county is distributed to the other counties in the state.

     - If PS activity ≥ Total emissions for <u>all</u> counties, then the nonpoint emissions for all counties is set to 0.

Questions?