

AREA SOURCE OVERVIEW

This section of the Technical Support Documentation (TSD) gives information describing how the area source inventory is developed.

Area Sources are small sources that do not qualify as point sources under the relevant emissions cutoffs. Area sources encompass more widespread sources that may be abundant, but that, individually, release small amounts of a given pollutant. These are sources for which emissions are estimated as a group rather than individually. Examples typically include dry cleaners, residential wood heating, auto body painting, and consumer solvent use. Area sources generally are not required to submit individual emissions estimates.

The main distinction between point and area sources is the methodology used to estimate emissions. Point sources are inventoried individually, and area sources are inventoried collectively.

The term “process” is used here to name an operation or activity that produces emissions. Area sources include broad groups of processes such as:

1. Commercial and consumer solvent usage;
2. Stationary fuel combustion;
3. Material storage and distribution;
4. Waste treatment and disposal;
5. Miscellaneous industrial manufacturing operations;
6. Miscellaneous sources (agricultural/forest burning, structure fires, mining construction, for example); and
7. Fuel distribution.

Each of these broad groups of processes contains a number of more specific groups or categories that share similar emission processes and emission estimation methods. The “Inventory Preparation Plan” included under Section 1.b of the TSD provides additional information on what is included in the area source inventory.

This section includes individual reports for the categories included in the Area Source Inventory. Summary tables for years 2007, 2008, 2009, and 2010 of the area source modeling output data are included under Section 2.c.ii of the TSD.

Activity data is used to calculate area source categories. This data includes population, employment, VMT, fuel usage, animal, crop, and other estimates. A list of the individual

data tables and sources of the data used in the calculation processes is included in Section 2.c.iii.A of the TSD. The Episodic Activity Data Workbook which contains the activity data by county is available electronically from UDAQ upon request.

An individual report for each category showing emission factors, activity data, and describing equations is included in Section 2.c iv.A of the TSD. Annual Episodic Excel Workbooks are available upon request for each episode year. These workbooks, in conjunction with the data spreadsheets, are where the calculations occur for each category. They contain summary tables showing the area source categories and individual pollutant emissions by county.

Included in the Annual Episodic Excel Workbooks are emissions for January 2009 and December 2009. This is included because in April of 2009 petroleum companies and gas stations in certain counties were required to begin using Stage 1 in the gasoline process. Because there were potential episodes in the beginning of 2009 and the end of 2009, summary tables for January 2009 without Stage 1 in some counties and December 2009 with Stage 1 in the additional counties were developed.