

SOURCE INVENTORY

CATEGORY #753

**MISCELLANEOUS EMISSION SOURCES
ACCIDENTAL FIRES - AUTOMOBILES**

1999 EMISSIONS

Introduction

This category covers emissions from automobile accidental fires. The method used to calculate emissions for this category conforms to the method used by ARB.

Methodology

The number of automobile fires was acquired from the state fire marshal’s office. The throughput data for this base year was obtained by multiplying base year 1996 throughput by population growth.

The emission factors for automobile fires were derived from AP-42, Section 2.2.2 and 2.4.2 Table 2.2-1 of AP-42 list the emission factors for uncontrolled auto body incineration, which are based on automobiles that have been partially stripped (tires, seats, etc. removed). Table 2.4-1 lists the emission factors for open burning of automobile components. These emission factors are for upholstery, belts, hoses, and tires burned in common.

It is assumed that tires are burned in 60% of the automobile fires. Composite emission factors were calculated as a weighted average of the emission factors listed in Table 2.2-1 and 2.4-1 of AP-42, with the assumption that the average car body weighs 3,700 pounds and the components weigh 500 pounds. The composite emission factors are listed below:

	PM	Organic	NO _x	SO _x	CO
Pounds/fire	17	7.21	0.7	0	21.25

Monthly Variation

The monthly distribution was taken to be the same as the monthly variation used in the BY90 Methodology calculation.

County Distribution

The number of fires was broken down by population by county. This was used directly in the county distribution except for Solano and Sonoma which were adjusted to include only areas inside the District using population.

TRENDS

Historical and future county projection were estimated using county population.