

Source Category:	Combustion - Structure Fires
SCC Code:	2810030000
Pollutants of Concern:	PM-10, PM-2.5
How is the PM National Emission Inventory developed for this category?	
Current Methodology (see also the link to the NEI Methodology Description):	
<ul style="list-style-type: none"> • This category includes emissions from the burning of residential or commercial structures and their contents. • The basis for calculation of emissions from a structure fire uses emission factors from AP-42 (Table 18.4-1). • The number of structural fires is obtained from the U.S Fire Administration National Fire Data Center (NFDC). • On average the total material burned in a structure fire is 1.15 tons (CARB). • National emissions were allocated to the county level using population. • PM-2.5 emissions assumed to be 0.91 of PM-10. 	
Current Variables/Assumptions Used:	
<ul style="list-style-type: none"> • Number of fires occurring within the inventory area (<i>based on per capita average from CARB study</i>). • National value for average amount of material burned per structure. • Assumed value for PM-2.5 emissions. 	
Uncertainties / Shortcomings of Current Methods:	
<ul style="list-style-type: none"> • The method depends on an average amount of material burned per fire. • The method does not consider timing or frequency of fires. • The method ignores industrial fires because the variability of materials that can burn in industrial fires makes prediction of emissions difficult. 	
How can State, Local, and Tribal agencies improve upon this methodology?	
<ul style="list-style-type: none"> • Use of local data on number of fires and percentage of structure/mass burned where possible [<i>Local agency/ Fire Department statistics</i>] • EIIP has prepared a report on this category. EIIP recommends collecting data for the number of residential and non-residential structure fires in the area, or collecting data on a subset representative of the entire area. • Other factors for fuel loading and the emission factor from the standard methodology can be used. 	
<p>NOTE: State, local and tribal agencies should assess the relative importance of this (or any) category to the overall emission load and decide if any effort to improve the estimate is warranted.</p>	

Where can I find Additional Information and Guidance?

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Area Source Emissions Model	http://www.epa.gov/ttn/chief/software/asem/index.html
EIIP Document on Structure Fires	http://www.epa.gov/ttn/chief/eiip/techreport/volume03/ii18_apr2001.pdf
NEI Methodology Description	ftp://ftp.epa.gov/EmisInventory/finalnei99ver2/criteria/