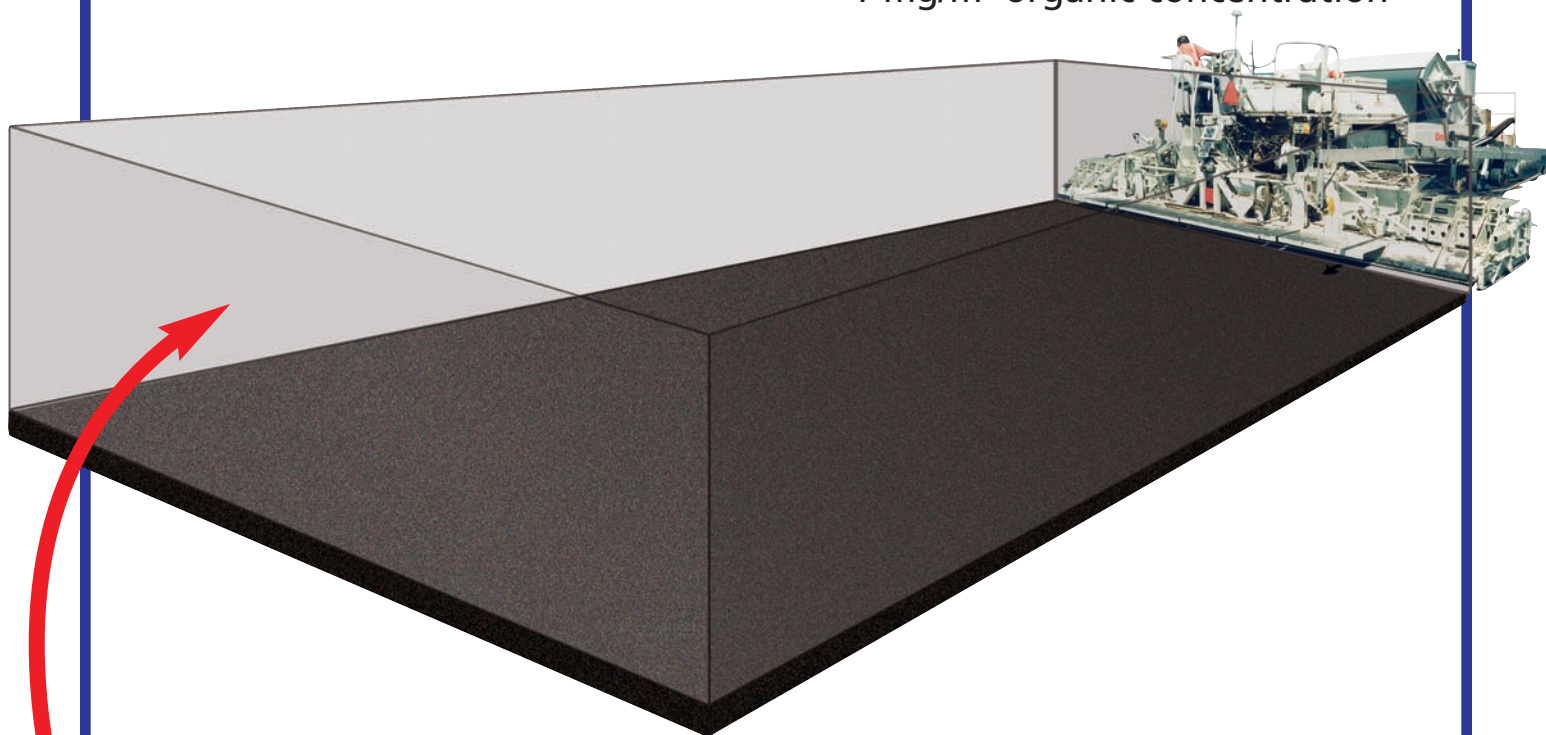


# Daily Amount of Organic Emissions from Hot Mix Paving Operations

## ASSUMPTIONS

1500 tons of HMA laid/day  
5% asphalt cement content  
145 pounds per cubic foot

12 ft. wide lane paved  
2 in. mat thickness  
6 ft. high headspace  
1 mg/m<sup>3</sup> organic concentration



## CALCULATIONS

### Amount of Asphalt Cement

1500 tons/day (5% asphalt cement = 75 tons of asphalt cement/day)

### Length Paved During a Day

$\frac{1500 \text{ tons/day [2000 lbs/ton]}}{145 \text{ lbs/ft}^3 \text{ [12 ft.-wide] [2/12 ft.-thick]}} = 10,345 \text{ ft. or 1.96 miles}$

### Amount of Organic Fume

$\frac{1 \text{ mg/m}^3 \text{ [12 ft.-wide] [6 ft.-high] [10,345 ft.-long]}}{35.31 \text{ ft.}^3/\text{m}^3} = 21.1 \text{ grams of organics}$

## EMISSION FACTORS

$\frac{21.1 \text{ grams of organic}}{75 \text{ tons of asphalt cement [453.6 grams/lb.]}} = 0.0006 \text{ lb./ton of asphalt cement}$

$\frac{21.1 \text{ grams of organic}}{1500 \text{ tons of HMA [453.6 grams/lb.]}} = 0.00003 \text{ lb./ton of HMA}$