

Harold Brazil - Truck conversion table for discussion at the next Conformity Task Force Meeting

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Subject: Truck conversion table for discussion at the next Conformity Task Force Meeting
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Hi Harold

I have reviewed various sources of information and data and developed the simplified table below to convert Caltrans' annual average daily traffic truck data by number of axles to number of diesel trucks for areas with overall truck percentage of 8% and higher:

Number of Axles	Overall Diesel %
2	53.4%
3	94.6%
4	97.7%
5 and 5+	98.1%

Two sources of information were used to develop this table:

- 1) Data from a goods movement study in Southern California (VRPA Technologies, 2002) showing the distribution of trucks by number of axle across various GVW ratings used in California Air Resources Board EMFAC2011 model:

Number of Axles	Light-Duty	Medium-Duty	Light-Heavy-Duty I	Light-Heavy-Duty II	Medium-Heavy-Duty	Heavy-Heavy-Duty	Total
	To 5,750	5,751-8,500	8501-10,000	10,001-14,000	14,001-33,000	33,001-60,000	
2	11.8%	13.2%	13.2%	14.4%	34.5%	12.9%	100%
3	0.0%	0.7%	0.7%	1.4%	11.7%	85.5%	100%
4	0.0%	0.0%	0.0%	0.0%	2.8%	97.2%	100%
5 and 5+	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100%

- 2) Gasoline and diesel fractions within each EMFAC2011 truck weight category for the Bay Area for 2013:

	Light-Duty	Medium-Duty	Light-Heavy-Duty I	Light-Heavy-Duty II	Medium-Heavy-Duty	Heavy-Heavy-Duty
Gasoline Fraction	99.9%	99.9%	69.9%	42.9%	17.4%	1.9%
Diesel Fraction	0.1%	0.1%	30.1%	57.1%	82.6%	98.1%

I have not had a chance to see if it is worthwhile developing county-specific tables. We'll see how Task Force members react to the above approach first.
 Amir