



CAMERON GREAT LAKES, INC.

MOLECULAR FILTRATION SPECIALISTS

CONTAMINANT OVERVIEW FOR VEHICLE EXHAUST

Table one will review the contaminant classes found in automobile exhaust and diesel exhaust. It is important to note that those with the highest concentration levels below may not necessarily be the cause of IAQ complaints and/or health concerns.

TABLE 1

Contaminant	Automobile	Diesel Engines
	In pounds per 1000 gallons of fuel	
Aldehydes	4	10
Carbon Monoxide	2300	60
Hydrocarbons	200	136
Oxides of Nitrogen	113	222
Oxides of Sulfur	9	40
Organic Acids	4	31
Particulates	12	110

Table two will review the threshold Limit Value and the Odor Threshold for the specific compounds below. The TLV below is the level at which health concerns may be expected. However even when the contaminants are present below the TLV it is possible that the source of an IAQ complaint may be contaminant present in concentrations meeting or exceeding its odor threshold.

TABLE 2

Contaminant Class	Compound	TLV, PPM	Odor Threshold, PPM
Aldehydes	Formaldehyde	1.0	1.0
	Acrolein	.01	0.2-15
Carbon Monoxide	Carbon Monoxide	50	n.a.
Hydrocarbons	Toluene	200	2.14-15
	Cyclohexane	300	0.41
	Xylene	100	0.47-200
Oxides of Nitrogen	Nitrogen Dioxide	5.0	5.0
	Nitric Oxide	25.0	0.3-1.0
Oxides of Sulfur	Sulfur Dioxide	5.0	0.47-5.0
Organic Acids	Acetic Acid	10.0	0.2-2.4
Other	Hydrogen Sulfide	20.0	0.00047-4.6
	Ozone	.01	0.1

Several hundred compounds have been detected from vehicular exhaust. These are just a few of the major known components.