

APPENDIX O
[RESERVED]

[The Department is presently evaluating substances and concentrations for inclusion on this list. A technical document containing Toxic Air Contaminants (TAC) Maximum Acceptable Ambient Concentrations(MAAC) under consideration for Appendix O is included.]

**TOXIC AIR CONTAMINANTS (TAC) MAXIMUM ACCEPTABLE AMBIENT CONCENTRATIONS (MAAC)
UNDER CONSIDERATION FOR APPENDIX O**

Carcinogens Based on IRIS

CAS	SUBSTANCE	SC41 Existing MAAC	SC42 10 ⁻⁴ Risk Level	SC42 10 ⁻⁵ Risk Level	SC42 10 ⁻⁶ Risk Level	Units	Time Period	Emissions 2002 (Tons)
75-07-0	Acetaldehyde (Prob. C)	2	.028	.0028	.00028	ppm	24-hr avg.	76
107-13-1	Acrylonitrile (Prob. C)	.0006	.0005	.00005	.000005	ppm	24-hr avg.	.7
Group	Arsenic compounds (known C)	2	.02	.002	.0002	µg/m ³	24-hr avg.	1.0
71-43-2	Benzene (Known C)	.01	.01	.001	.0001	ppm	24-hr avg.	299
Group	Beryllium compounds (Prob. C)	.02	.04	.004	.0004	µg/m ³	24-hr avg.	
106-99-0	1,3-butadiene (Known C)	.02	.001	.0001	.00001	ppm	24-hr avg.	1.5
Group	Cadmium compounds (Prob. C)	.5	.06	.006	.0006	µg/m ³	24-hr avg.	.06
56-23-5	Carbon tetrachloride (Prob. C)	.02	.001	.0001	.00001	ppm	24-hr avg.	14
67-66-3	Chloroform (Prob. C)	.02	.0008	.00008	.000008	ppm	24-hr avg.	27
Group	Chromium compounds (Known C)	.01	.008	.0008	.00008	µg/m ³	24-hr avg.	.05
107-06-2	Ethylene dichloride (1,2-dichloroethane) (Prob. C)	.01	.001	.0001	.00001	ppm	24-hr avg.	4.0
50-00-0	Formaldehyde (Prob.C)	.01	.007	.0007	.00007	ppm	24-hr avg.	841
118-74-1	Hexachlorobenzene (Prob. C)	1.7E-6	.00002	.000002	.0000002	ppm	24-hr avg.	0
302-01-2	Hydrazine (Prob. C)	.0003	.00002	.000002	.0000002	ppm	24-hr avg.	0
75-09-2	Methylene chloride (Prob.C)	.5	.058	.0058	.00058	ppm	24-hr avg.	72
Group	Nickel compounds	.15	.4	.04	.004	µg/m ³	24-hr avg.	6
79-34-5	1,1,2,2-tetrachloroethane (Pos. C)	.01	.0003	.00003	.000003	ppm	24-hr avg.	.6
75-01-4	Vinyl chloride (Known C)	.05	.009	.0009	.00009	ppm	24-hr avg.	2

Non-Carcinogens Based on IRIS

CAS	SUBSTANCE	SC41 Existing MAAC	SC42 RfC	SC 42 HEC	NOAEL Or LOAEL	Units	Time Period	2002 Emissions (Tons)
107-02-8	Acrolein	.001	.00001	.009	LOAEL	ppm	24-hr avg.	19
7664-41-7	Ammonia	2.5	.00014	3.3	NOAEL	ppm	24-hr avg.	3128
100-41-4	Ethylbenzene	10	.00023	100	NOAEL	ppm	24-hr avg.	116
Group	Manganese compounds	100	.05	50	LOAEL	ug/m ³	24-hr avg.	13
Group	Mercury compounds	.5	.3		LOAEL	ug/m ³	24-hr avg.	.2
78-87-5	Propylene dichloride (1,2-dichloropropane)	.75	.00087	.3	LOAEL	ppm	24-hr avg.	0
108-88-3	Toluene	10	.00011	32	LOAEL	ppm	24-hr avg.	933

* The above tables denote various levels stated as 24-hour averages and substances for consideration for inclusion in Appendix O. Comments from the public as to their appropriateness are requested.

The Integrated Risk Information System (IRIS): The EPA's database of human health effects that may result from exposure to various substances found in the environment. The website address is www.epa.gov/iris.

Excess Lifetime Risk: The additional or extra risk of developing cancer due to exposure to a toxic substance incurred over the lifetime of an individual.

10-4 Risk Level: Concentration that is expected to result in excess cancer risk of one in ten thousand population.

10.5 Risk Level: Concentration that is expected to result in excess cancer risk of one in one hundred thousand population.

10.6 Risk Level: Concentration that is expected to result in excess cancer risk of one in one million population.

Reference Concentration (RfC): An estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from a NOAEL, LOAEL, or benchmark concentration, with uncertainty factors generally applied to reflect limitations of the data used. Generally used in EPA's noncancer health assessments.

Lowest-Observed-Adverse-Effect Level (LOAEL): The lowest exposure level at which there are biologically significant increases in frequency or severity of adverse effects between the exposed population and its appropriate control group.

No-Observed-Adverse-Effect Level (NOAEL): The highest exposure level at which there are no biologically significant increases in the frequency or severity of adverse effect between the exposed population and its appropriate control; some effects may be produced at this level, but they are not considered adverse or precursors of adverse effects.

Human Equivalent Concentration (HEC) or Dose (HED): The human concentration (for inhalation exposure) or dose (for other routes of exposure) of an agent that is believed to induce the same magnitude of toxic effect as the experimental animal species concentration or dose. This adjustment may incorporate toxicokinetic information on the particular agent, if available, or use a default procedure, such as assuming that daily oral doses experienced for a lifetime are proportional to body weight raised to the 0.75 power.

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