

History of Changes ⁽¹⁾ to Vapor Action Levels (VAL) ⁽²⁾, Vapor Risk Screening Levels (VRSL) and Attenuation Factors (AF) ⁽³⁾ for Common Volatile Organic Compounds (VOC) in Wisconsin - August 2017

Notes:

1. This historical table supplements the DNR's Quick Look-Up Table and is intended to be used in understanding previous site-specific decisions regarding vapor data.
2. The VAL is either Residential or Non-residential (i.e., Small Commercial VAL = Large Commercial & Industrial VAL). "Residential setting" includes educational, child care and elder care settings per s. NR 700.03(49g), Wis. Adm. Code.
3. The AF is either Residential/Small Commercial or Large Commercial & Industrial (i.e., Residential AF = Small Commercial AF).

Tetrachloroethylene (PCE)													
Date	Residential				Small Commercial				Large Commercial & Industrial				Sub-slab AF for Res/ Sm Comm vs. Lg Comm & Industrial
	Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		
	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	
2010	4.1	0.6	--	--	21	3.1	--	--	21	3.1	--	--	AF not yet established
May 2010	4.1	0.6	41	6	21	3.0	210	30	21	3.0	2,100	300	AF = 0.1 / 0.01
May 2012	42	6.2	420	62	180	27	1,800	270	180	27	18,000	2,700	AF = 0.1 / 0.01
Jun 2015	42	6.2	1,400	210	180	27	6,000	900	180	27	18,000	2,700	AF = 0.03 / 0.01

Trichloroethylene (TCE)													
Date	Residential				Small Commercial				Large Commercial & Industrial				Sub-slab AF for Res/ Sm Comm vs. Lg Comm & Industrial
	Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		
	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	
2010	12	2.2	--	--	61	11.4	--	--	61	11.4	--	--	AF not yet established
May 2010	12	2.2	120	22	61	11	610	110	61	11	6,100	1,100	AF = 0.1 / 0.01
Nov 2011	2.1	0.39	21	3.9	8.8	1.6	88	16	8.8	1.6	880	160	AF = 0.1 / 0.01
Jun 2015	2.1	0.39	70	13	8.8	1.6	290	53	8.8	1.6	880	160	AF = 0.03 / 0.01

cis-1,2-dichloroethylene (cis-1,2-DCE)													
Date	Residential				Small Commercial				Large Commercial & Industrial				Sub-slab AF for Res/ Sm Comm vs. Lg Comm & Industrial
	Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		
	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	
2010	370	93	--	--	15,270	3,860	--	--	15,270	3,860	--	--	AF not yet established
May 2010	--	--	--	--	--	--	--	--	--	--	--	--	AF = 0.1 / 0.01

Key:

µg/m³ = micrograms per cubic meter
 ppbV = parts per billion by volume

-- not established
 Changes noted in **BOLD**

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Vinyl Chloride (VC)													
Date	Residential				Small Commercial				Large Commercial & Industrial				Sub-slab AF for Res/ Sm Comm vs. Lg Comm & Industrial
	Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		
	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	
2010	1.6	0.6	--	--	28	11	--	--	28	11	--	--	AF not yet established
May 2010	1.6	0.62	16	6.2	28	11	280	110	28	11	2,800	1,100	AF = 0.1 / 0.01
May 2014	1.7	0.65	17	6.5	28	11	280	110	28	11	2,800	1,100	AF = 0.1 / 0.01
Jun 2015	1.7	0.65	57	22	28	11	930	370	28	11	2,800	1,100	AF = 0.03 / 0.01

Benzene													
Date	Residential				Small Commercial				Large Commercial/Industrial				Sub-slab AF for Res/ Sm Comm vs. Lg Comm & Industrial
	Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		
	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	
2010	3.1	1.0	--	--	16	5	--	--	16	5	--	--	AF not yet established
May 2010	3.1	0.95	31	9.5	16.0	4.9	160	49	16.0	4.9	1,600	490	AF = 0.1 / 0.01
May 2014	3.6	1.1	36	11	16.0	4.9	160	49	16.0	4.9	1,600	490	AF = 0.1 / 0.01
Jun 2015	3.6	1.1	120	37	16	4.9	530	160	16	4.9	1,600	490	AF = 0.03 / 0.01

Naphthalene													
Date	Residential				Small Commercial				Large Commercial/Industrial				Sub-slab AF for Res/ Sm Comm vs. Lg Comm & Industrial
	Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		Indoor Air VAL		Sub-slab VRSL		
	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	µg/m ³	ppbV	
May 2010	0.72	0.14	7.2	1.4	3.6	0.68	36	6.8	3.6	0.68	360	68	AF = 0.1 / 0.01
May 2014	0.83	0.16	8.3	1.6	3.6	0.68	36	6.8	3.6	0.68	360	68	AF = 0.1 / 0.01
Jun 2015	0.83	0.16	28	5.3	3.6	0.68	120	23	3.6	0.68	360	68	AF = 0.03 / 0.01

Key:

µg/m³ = micrograms per cubic meter
ppbV = parts per billion by volume

-- not established
Changes noted in **BOLD**