

APPENDIX F

SUMMARY OF DRINKING WATER STANDARDS FOR VINYL CHLORIDE

**SUMMARY OF DRINKING WATER STANDARDS FOR VINYL CHLORIDE
HIGHWAY 96 SITE
WHITE BEAR TOWNSHIP, MINNESOTA**

Country	Province/State	Association	Type of Drinking Water System	Type of Criteria	Drinking Water Criteria	Units	Reference
United States	Alabama	Alabama Department of Environmental Management, Water Division	Drinking Water Supply- Not specific to public or private	MCL	2	ug/L	Alabama Department of Environmental Management, Water Division- Water Supply Program. Division 335-7. January 28, 2004. http://www.adem.state.al.us/WaterDivision/WaterDivisionPP.htm
United States	Arkansas	Government of Arkansas	Public Water Supply	MCL	2	ug/L	Contacted the Government directly. Transferred to Conway Mitchum in the Engineering Department- 501-661-2652
United States	Arkansas	Government of Arkansas	Private Well	MCL	Not regulated	ug/L	Contacted the Government directly. Transferred to Conway Mitchum in the Engineering Department- 501-661-2652
United States	California	California Department of Health Services	General Drinking Water	MCL	0.5	ug/L	California Department of Health Services Action Levels- http://www.dhs.ca.gov/ps/ddwem/chemicals/AL/priorals.pdf
United States	Connecticut	State of Connecticut Department of Public Health	Public & Private Drinking Water	MCL	2	ug/L	State of Connecticut Public Health Code, Public Drinking Water Quality Standards, Department of Public Health, 2004. State of Connecticut Public Health Code, Private Water Supply Systems, Department of Public Health, 2004.
United States	Florida	Florida Department of Environmental Protection	Drinking Water Supply- Not specific to public or private	MCL	1	ug/L	Florida Department of Environmental Protection, Chapter 62-550, Drinking Water Standards, Monitoring and Reporting, Maximum Contaminant Levels for Drinking Water in Florida. March 26, 2004.
United States	Georgia	Georgia Department of Natural Resources Environmental Protection Division	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	Rules of Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-5. Section 391-3-5-.18 Primary Maximum Contaminant Levels for Drinking Water.
United States	Illinois	Illinois Environmental Protection Agency	Public & Private Drinking Water	MCL	2	ug/L	Phone call
United States	Indiana	State of Indiana Department of Natural Resources	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	Indiana Administrative code Page 1, Article 8- Public Water Supply. State of Indiana, Department of Natural Resources, Division of Water.
United States	Iowa	Iowa Department of Natural Resources	Public & Private Drinking Water	MCL	2	ug/L	Phone call
United States	Kentucky	Kentucky Legislature	Public Drinking Water Supply	MCL	2	ug/L	Kentucky Legislature, Kentucky Administrative Regulations, Title 401, Natural Resources and Environmental Protection Cabinet, Department of Environmental Protection. 401 KAR 8:420
United States	Louisiana	Louisiana State	Community Systems serving more than 3300 people. Also, community systems serving less than 3300 people.	MCL	2	ug/L	Louisiana State. Federal and State Drinking Water Quality Regulations. January 1994.
United States	Maine	Maine State Bureau of Health	Health-based Recommendations	MEG	0.2	ug/L	http://www.maine.gov/dhhs/ehu/wells/ March 23, 2005
United States	Maine	Maine State Bureau of Health	Public Drinking Water Supply	MCL	2		10-144 Chapter 231 State of Maine, Rules Related to Drinking Water. Department of Health and Human Services. Division of Health Engineering, November 2, 2004.
United States	Massachusetts	Massachusetts Department of Environmental Protection	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	Government of Massachusetts, 310 CMR: Department of Environmental Protection, 310 CMR 22.00: Drinking Water
United States	Michigan	State of Michigan	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	Michigan Department of Environmental Quality. Safe Drinking Water Act 1976 PA 339 and Administrative Rules, as amended, January 29, 2003.
United States	Minnesota	Minnesota Department of Health	Health Risk Limit	HRL	0.2	ug/L	http://www.health.state.mn.us/divs/eh/groundwater/hrlrule.html . March 23, 2005
United States	Minnesota	Minnesota Department of Health	Public Water Supply- Adopted from National Primary Drinking Water Standards	MCL	2	mg/L	http://www.health.state.mn.us/divs/eh/groundwater/hrlrule.html . March 23, 2005
United States	Mississippi	Mississippi Department of Health	Drinking Water Supply not specific to public or private- Adopts the National Primary Drinking Water Standards	MCL	2	ug/L	Mississippi Department of Health, Regulations and Licensure, Water Supply Regulations and Guidelines. March 23, 2005. http://www.msdh.state.ms.us/msdhsite/_static/resources/335.pdf
United States	Missouri	Missouri Department of Natural Resources	Public & Private Drinking Water	MCL	2	ug/L	Phone call
United States	New Hampshire	New Hampshire Department of Environmental Services	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	New Hampshire Department of Environmental Services, Env-Ws 317.01 Health Related Regulated Volatile Organic Chemical (VOC) Contaminants.
United States	New Jersey	New Jersey Department of Environmental Protection Water Supply Administration	Public & Private Drinking Water	MCL	2	ug/L	New Jersey Department of Environmental Protection Water Supply Administration. Federal and New Jersey State Primary and Secondary Drinking Water Standards as of February 2005. Volatile Organic Compounds.
United States	New Mexico	New Mexico Environmental Improvement Board	Public Water System	MCL	2	ug/L	Drinking Water Regulations Title 20, Chapter 7, Part 10. New Mexico Administrative Code. Revised December 4, 2002.
United States	New York State	New York State, Department of Health	Public & Private Drinking Water	MCL	2	ug/L	New York State Department of Health, Part 5, Subpart 5-1 Public Water Systems - Tables 1 through 7. May 26, 2004.
United States	North Carolina	North Carolina Department of Environment and Natural Resources	Drinking Water Supply- Not specific to public or private	MCL	2	ug/L	North Carolina Department of Environment and Natural Resources. Public Water Supply Systems, "Rules Governing Public Water Supply Systems". September 2004.
United States	North Dakota	North Dakota Department of Health	Public & Private Drinking Water	MCL	2	ug/L	Phone call
United States	Ohio	Ohio Environmental Protection Agency	Public Drinking Water Standards	MCL	2	ug/L	Public Drinking Water Standards for Ohio. I. Primary Standards for Ohio Public Water Supplies (Ohio Administrative Code; Chapter 3745-81). Volatile Organic Chemicals (VOCs). Revised Date: March 1, 2002.
United States	Oklahoma	Oklahoma Department of Environmental Quality	Public Water Supply Operation	MCL	2	ug/L	Oklahoma Administrative Code. Chapter 631, Public Water Supply Operation. Section 252: 631-3-1. Public Water Supply (PWS) criteria. June 1, 2003.
United States	Pennsylvania	Pennsylvania Department of Environmental Protection Division of Drinking Water Management	Drinking Water Supply- Not specific to public or private	MCL	2	ug/L	Pennsylvania Department of Environmental Protection. Division of Drinking Water Management, Maximum Contaminant Levels (MCLs). Primary Contaminants. January 1, 2002.

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United States	Rhode Island	State of Rhode Island and Providence Plantations Department of Health	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	Rules and Regulations Pertaining to Public Drinking Water (R46-13-DWQ) State of Rhode Island and Providence Plantations Department of Health, September 1977 (as Amended January 2005). http://www.rules.state.ri.us/rules/released/pdf/DOH/DOH_2427.pdf , March 24, 2005.
United States	South Carolina	South Carolina Department of Health and Environmental Control	Public Drinking Water Supply	MCL	2	ug/L	South Carolina Department of Health and Environmental Control, DHEC. R.61-58 State Primary Drinking Water Regulation, December 27, 2002.
United States	South Dakota	South Dakota Department of Environment and Natural Resources	Public & Private Drinking Water	MCL	2	ug/L	South Dakota Drinking Water Standards Summary, Drinking Water Standards. http://www.state.sd.us/denr/DES/Drinking/PDF/summary2.pdf , February 29, 2000.
United States	Tennessee	Tennessee Department of Environment and Conservation, Bureau of Environment	Public Drinking Water Supply	MCL	2	ug/L	Rules of Tennessee Department of Environment and Conservation, Bureau of Environment, Division of Water Supply, Chapter 1200-5-1, Public Water Systems, Effective November 10, 1988.
United States	Texas	Texas Commission of Environmental Quality	Community and Non-transient, Non-community Water System (NTNC) ²	MCL	2	ug/L	Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water System, 30 TAC, Chapter 290, Subchapter F, Water Supply Division, Texas Commission on Environmental Quality, February 2004.
United States	Vermont	State of Vermont Agency of Natural Resources Department of Environmental Conservation	Public & Private Drinking Water	MCL	2	ug/L	State of Vermont Agency of Natural Resources, Department of Environmental Conservation, Water Supply Division, Environmental Protection Rules, Chapter 21, Water Supply Rule, June 19, 2003. State of Vermont Agency of Natural Resources, Department of Environmental Conservation, Water Supply Division, Environmental Protection Rules, Chapter 21, Water Supply
United States	Vermont	Vermont Department of Health	Vermont Action Levels (VALs)- used with eight chemicals of specific public health concern in public water systems. Action Levels as established by the Department of Health are the concentrations at or above which a specific (priority) procedure will be followed to provide public health protection.	VAL	0.5	ug/L	http://www.healthyvermonters.info/hp/waterquality/drinkwaterguidance02.pdf , December 2002.
United States	West Virginia	West Virginia Department of Health and Human Resources, Bureau for Public Health	Public Drinking Water Supply- Adopts the National Primary Drinking Water Standards, 40 C.F.R. Part 141 as outlined in Section 64-3-10 in Title 64, Series 3, Public Water Systems	MCL	2	ug/L	State of West Virginia, Title 64, Legislative Rule, Bureau for Public Health, Series 3, Public Water Systems, July 1, 2002.
United States	Wisconsin	Wisconsin Department of Natural Resources	Community and Non-transient, Non-community Water System (NTNC) ²	WES	0.2	ug/L	Wisconsin Department of Natural Resources, Chapter NR 809, Safe Drinking Water, July 7, 2003.
United States		United States Environmental Protection Agency (USEPA)	Public & Private Drinking Water	MCL	2	ug/L	USEPA Maximum Contaminant Level for Safe Drinking Water Act (SDWA)- http://www.epa.gov/OGWDW/dwh/c-voc/vinylchl.html
Australia					0.3	ug/L	National Water Quality Management Strategy- Australian Drinking Water Quality Guidelines, 2004. http://www.nhmrc.gov.au/publications/synopses/eh19syn.htm
Canada	British Columbia	British Columbia			2	ug/L	British Columbia Approved Water Quality Guidelines (Criteria)- 1998 Edition
Canada	Ontario	Ministry of the Environment (MOE) Ontario Drinking-Water Quality Standards.			2	ug/L	Ontario, Safe Drinking Water Act, 2002, Ontario Regulation 169/03, Ontario Drinking-Water Quality Standards.
Canada	Ontario	MOE- Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.			0.5	ug/L	Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, March 9, 2004, Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Coarse Soil.
Canada	Saskatchewan	City of Regina			2	ug/L	City of Regina – Water Distribution System, Drinking Water Quality and Compliance Report for 2004. http://www.regina.ca/pdfs/Compliance_report.pdf
Canada		Canadian Council of Ministers of the Environment (CCME)			2	ug/L	Canadian Council of Ministers of the Environment, Canadian Environmental Quality Guidelines, Summary of Existing Canadian Environmental Quality Guidelines, December 2003.
		European Union			0.5	ug/L	http://www.lenntech.com/EU/drinking-water-standards.htm
		World Health Organization (WHO)			0.3	ug/L	http://www.who.int/water_sanitation_health/dwq/chemicals/en/vinylchloride.pdf

Notes:

Listed items were obtained from CRA's informal drinking water standards database. The list is not meant to be a complete compilation of vinyl chloride standards. The standards may not be current.

MCL- Maximum Contaminant Limit

MEG- Maximum Exposure Guidelines- Health-based guidelines that do not take into account analytical methods, treatment technology, or economic impacts. These were developed to assist risk managers, homeowners and others in making decisions regarding the suitability for human consumption of drinking water contaminated by chemicals. (Maine Bureau of Health, 2000).

HRL- Health Risk Limit

VAL- Vermont Action Level

WES- Wisconsin Enforcement Standard

¹ Pro-rated to account for significance of exposure to vinyl chloride in early-life.

² A community water system is one that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. An NTNC water system is not a community water system and that has at least 15 service connections or regularly serves at least 25 of the same persons or more approximately four or more hours per day, four or more days per week, more than six months or 180 days per year, such as a workplace providing water to its employees.