

COMMONWEALTH OF KENTUCKY'S SDWA COMPLIANCE SCHEDULE

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.state.ky.us/kar/401/008/200.htm>

Note: Compliance Cycle is defined as every nine (9) years beginning 1993.

Compliance period is every 3 years within the nine (9) year cycle.

[Compliance Cycles: 1993 -2001; 2002 - 2010; 2011 - 2020]

401 KAR 8:200 Microbiological Monitoring

Who is affected?:

All suppliers of water operating a public or semipublic water system, including suppliers operating those systems which provide water purchased from another system, shall meet the requirements of this administrative regulation.

Who Should Collect?:

A public water system shall collect total coliform samples at sites which are representative of water throughout the distribution system according to a written sample siting plan.

Total Coliform Sampling Requirements			
Population Served	Minimum No. of Monthly Samples	Population Served	Minimum No. of Monthly Samples
25 - 2,500	2	59,001 - 70,000	70
2,501 - 3,300	3	70,001 - 83,000	80
3,301 - 4,100	4	83,001 - 96,000	90
4,101 - 4,900	5	96,001 - 130,000	100
4,901 - 5,800	6	130,001 - 220,000	120
5,801 - 6,700	7	220,001 - 320,000	150
6,701 - 7,600	8	320,001 - 450,000	180
7,601 - 8,500	9	450,01 - 600,000	210
8,501 - 12,900	10	600,001 - 780,000	240
12,901 - 17,200	15	780,001 - 970,000	270
17,201 - 21,500	20	970,001 - 1,230,000	300
21,501 - 25,000	25	1,230,001 - 1,520,000	330
25,001 - 33,000	30	1,520,001 - 1,850,000	360
33,001 - 41,000	40	1,850,001 - 2,270,000	390
41,001 - 50,000	50	2,270,001 - 3,020,000	420

50,001 – 59,000	60	3,020,000 – 3,960,000	450
		+3,960,000	480

401 KAR 8:250 INORGANIC CONTAMINANTS

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/250.htm>

Who Should Collect?:

- ? Community Water Systems, and non-transient, non-community water systems
- ? Groundwater Systems (GW), Surface Water Systems (SW), and Systems with combinations of each.
- ? In some cases waivers and/or reductions can be applied for, see KAR for complete information.
- ? Additional samples may be required if compliance levels are not met, see KAR for complete information

Where Do I Collect?:

Groundwater Systems - At each entry point to the distribution system which is representative of each well after treatment. This point shall be the sampling point unless conditions make another sampling point more representative.

Surface Water Systems (including systems that are combination of GW & SW) – At every entry point to the distribution after any application of treatment or in the distribution system at a point which is representative of each source after treatment. This point shall be the sampling point unless conditions make another sampling point more representative.

Sampling Frequency:

Inorganic Contaminant Sampling Frequency			
Contaminant	Groundwater Supply	Surface Water Supply	Combination GW & SW
Antimony	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Barium	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Beryllium	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Cadmium	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Chromium	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr

Cyanide (Free)	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Fluoride	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Mercury	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Nickel	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Selenium	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr
Thallium	Minimum 1/3yr	Minimum 1/yr	Minimum 1/yr

Contaminant	Groundwater Supply	Surface Water Supply	Combination GW & SW
Nitrate ¹	Minimum 1/year	Quarterly	Quarterly
Nitrite ¹	Minimum 1/year	Quarterly	Quarterly

Note 1: Transient, non-community are only required annually

Contaminant	Supply Type	Frequency
Asbestos	Groundwater, Surface Water & Combination GW/SW (Purchasers excluded)	Once during first 3 year compliance period of each 9 year compliance cycle . 2002 began new 9 yr cycle. 2005 began new 3 yr compliance period.

401 KAR 8:300 Lead and Copper

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/300.htm>

Who Should Collect?:

- ? Community Water Systems, and non-transient, non-community water systems
- ? Groundwater Systems (GW), Surface Water Systems (SW), and Systems with combinations of each.
- ? In some cases waivers and/or reductions can be applied for, see KAR for complete information.
- ? Additional samples may be required if compliance levels are not met, see KAR for complete information

Where Do I Collect?:

A water system shall collect at least 1 sample during each monitoring period specified in the table below listed "Monitoring Period" from the number of sites in the table listed "Number of Sites"; column, "Standard Monitoring". Each site must be recorded in the site plan.

Reduced monitoring can be applied for. Reduced Monitoring shall be conducted at the number of sites listed in column "Reduced Monitoring".

NUMBER OF SITES		
System Size (No. of people served)	Standard Monitoring No. of Sites	Reduced Monitoring No. of Sites
+ 100,000	100	50
10,001 – 100,000	60	30
3,301 – 10,000	40	20
501 – 3,300	20	10
101 – 500	10	5
100 or less	5	5

MONITORING PERIOD	
System Size (No. of people served)	First 6 Month Monitoring Period
+ 50,000 (Large) ¹	January 1, 1992
3,301 – 50,000 (Medium) ²	July 1, 1992
3,300 or less (Small) ²	July 1, 1993

Note 1: A large system shall monitor during 2 consecutive 6 month periods

Note 2: A small or medium sized system shall monitor during each 6 month monitoring period until either; a) the action levels have exceeded, requiring implementation of corrosion control, or b) lead and copper levels meet the action levels and reduced monitoring has been initiated.

401 KAR 8:400 Synthetic Organic Chemicals

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/400.htm>

Who Should Collect?:

- ? Community Water Systems, and non-transient, non-community water systems
- ? Groundwater Systems (GW), Surface Water Systems (SW), and Systems with combinations of each.
- ? In some cases waivers and/or reductions can be applied for, see KAR for complete information.
- ? Additional samples may be required if compliance levels are not met, see KAR for complete information

Where Do I Collect?:

Groundwater Systems - At each entry point to the distribution system which is representative of each well after treatment. This point shall be the sampling point unless conditions make another sampling point more representative.

Surface Water Systems (including systems that are combination of GW & SW) – At every entry point to the distribution after any application of treatment or in the distribution system at a point which is representative of each source after treatment. This point shall be the sampling point unless conditions make another sampling point more representative.

Sampling Frequency:

If your water supply has not performed the initial sampling for baseline data (1/quarter) then this must be performed. Once 4 quarters of data collection has been completed, and there have been no out-of-compliance data, a reduction and/or waiver can be applied for. Reduced monitoring is 1/year.

SOC Method Listing ¹		
Method No.	Contaminant	MCL (mg/l)
EPA 504	Dibromochloropropane	0.0002
	Ethylene dibromide	0.00005
EPA 507	Alachor	0.002
	Atrazine	0.003
	Simazine	0.004
EPA 508	Chlordane	0.002
	Heptachlor	0.0004
	Heptachlor epoxide	0.0002
	Lindane	0.0002
	Methoxychlor	0.04
	PCB	0.0005
	Toxaphene	0.003
EPA 515	Endrin	0.002
	2,4,D	0.07
	2,4,5-TP	0.05
	Dalapon	0.2
	Dinoseb	0.007
EPA 525	Picloram	0.5
	Pentachlorophenol	0.001
	Benzo(a)pyrene	0.0002

	Di(2-ethylhexyl)adipate	0.4
	Di(2-ethylhexyl)phthalate	0.006
	Hexachlorobenzene	0.001
	Hexachlorocyclopentadiene	0.05
EPA 531	Aldicarb	0.003
	Aldicarb sulfoxide	0.004
	Aldicarb sulfone	0.003
	Carbofuran	0.04
	Oxamyl (Vydate)	0.2
EPA 547	Glyphosate	0.7
EPA 548	Endothall	0.1
EPA 549	Diquat	0.02

Note 1: Additional methods may be available.

401 KAR 8:420 Volatile Organic Chemicals

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/420.htm>

Who Should Collect?:

- ? Community Water Systems, and non-transient, non-community water systems.
- ? Groundwater Systems (GW), Surface Water Systems (SW), and Systems with combinations of each.
- ? In some cases waivers and/or reductions can be applied for, see KAR for complete information.
- ? Additional samples may be required if compliance levels are not met, see KAR for complete information

Where Do I Collect?:

Groundwater Systems - At each entry point to the distribution system which is representative of each well after treatment. This point shall be the sampling point unless conditions make another sampling point more representative.

Surface Water Systems (including systems that are combination of GW & SW) – At every entry point to the distribution after any application of treatment or in the distribution system at a point which is representative of each source after treatment. This point shall be the sampling point unless conditions make another sampling point more representative.

Sampling Frequency:

- ? Each community and non-transient, non-community water system shall take 4 consecutive quarterly samples during each compliance period (every 3 years).
- ? If the initial monitoring has been completed by 12/31/1992, and the system did not detect any of the contaminants listed in the table below - "VOC Contaminant List" then the system shall take 1 sample annually beginning with the initial compliance period.
- ? After a minimum of 3 years of annual sampling, Groundwater Systems with no previous detects maybe allowed to collect 1 sample during each compliance period.
- ? For systems conducting monitoring more frequent than annual, compliance will be determined by a running average of all samples collected at each sampling point.
- ? Additional caveats with regard to sample frequency and detects can be found in 401 KAR 8:420.

VOC Contaminant List			
Contaminant	MCL (mg/l)	Contaminant	MCL (mg/l)
Vinyl Chloride	0.002	Monochlorobenzene	0.1
Benzene	0.005	o-Dichlorobenzene	0.6
Carbon tetrachloride	0.005	Styrene	0.1
1,2,-Dichloroethane	0.005	Tetrachoroethylene	0.005
Trichloroethylene	0.005	Toluene	1
para-Dichlorobenzene	0.075	trans-1,2-Dichloroethylene	0.1
1,1-Dichloroethylene	0.007	Xylenes (Total)	10
1,1,1-Trichloroethane	0.2	Dichloromethane	0.005
cis-1,2-Dichloroethylene	0.07	1,2,4-Trichlorobenzene	0.07
1,2-Dichloropropane	0.005	1,1,2-Trichloroethane	0.005
Ethylbenzene	0.7		

401 KAR 8:510 Disinfection by-products (THM/HAA)

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/510.htm>

Who Should Collect?:

- ? Community Water Systems; non-transient, non-community water systems; and transient non-community.

- ? Transient non-community which uses chlorine dioxide shall be in compliance with the Maximum Residual Detection Level (MRDL) if daily samples are taken at the entry to the distribution system and no 2 consecutive days exceed 0.8 mg/l. See 401 KAR 8:510, Section 6
- ? Groundwater Systems (GW), Surface Water Systems (SW), and Systems with combinations of each.
- ? In some cases petitions for waivers or reduced monitoring will be considered, see KAR for complete information.
- ? Additional samples may be required if compliance levels are not met, see KAR for complete information

TTHMs & HAA5 Monitoring Requirements		
System Type	Minimum Monitoring Frequency	Sample Location
Surface water or groundwater under the direct influence of surface water - = 10,000 people served	Four (4) samples per quarter per treatment plant (KYDOW has recommended to add a 5 th sample - TPA or TPB)	1 - maximum retention 3- Distribution or average retention time sites 1 - TPA (recommended)
Surface water or groundwater under the direct influence of surface water - 500 to 9,999 people served	One (1) sample per quarter per treatment plant. (KYDOW has recommended to add TPA or TPB)	1 - Maximum retention locations. 1 - TPA &/or TPB (recommended)
Surface water or groundwater under the direct influence of surface water - <500 people served	One (1) sample per year per treatment plant during warmest month (KYDOW has recommended to add TPA or TPB)	1 - Maximum retention location 1 - TPA &/or TPB (recommended)
System using only groundwater <u>not</u> under direct influence of surface water using chemical disinfectant & serving = 10,000 people	One (1) sample per quarter per treatment plant. (KYDOW has recommended to add TPA or TPB)	1 - Maximum retention location 1 - TPA &/or TPB (recommended)
System using only groundwater <u>not</u> under direct influence of surface water using chemical disinfectant & serving <10,000 people	One (1) sample per year per treatment plant during warmest month (KYDOW has recommended to add TPA or TPB)	1 - Maximum retention location 1 - TPA &/or TPB (recommended)
Note 1: if a system collects more frequent samples, at least 25% of all samples collected each quarter, must be collected at maximum retention time locations.		
Note 2: Multiple wells from the same aquifer maybe considered one treatment plant.		

401 KAR 8:550 Radionuclides

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/550.htm>

Who Should Collect?:

- ? All producers of water for community water systems.

SAMPLE FREQUENCY & LOCATION		
Contaminant	Frequency	Location
Radionuclides: Radium 226 Radium 228 Gross alpha	1 sample every 4 years	Free flowing tap within the distribution system.

401 KAR 8:600 Secondary Standards

The following information is not all inclusive of the regulation. This information shall be used as a guide only. For more information click here:

<http://www.lrc.ky.gov/kar/401/008/600.htm>

Who Should Collect?:

- ? All suppliers of water for public and semipublic use.
- ? New sources of water. Contaminat levels could be cause for rejection of new source.
- ? Existing sources of water.

Where should I collect:

- ? Free-flowing tap in the distribution system.

SECONDARY CONTAMINANTS	
Contaminant	Level
Aluminum	0.05 – 0.2 mg/l
Chloride	250 mg/l
Color	15 color units
Copper	1.0 mg/l
Corrosivity	Noncorrosive

Fluoride	2.0 mg/l
Foaming Agents	0.5 mg/l
Iron	0.3 mg/l
Manganese	0.05 mg/l
Odor	3 threshold odor number
pH	6.5 – 8.5
Silver	0.1 mg/l
Sulfate	250 mg/l
TDS	500 mg/l
Zinc	5 mg/l

401 KAR 8:700 Bottled Water

Please click here <http://www.lrc.ky.gov/kar/401/008/700.htm> for information concerning Bottled Water Systems.