TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 14, ARTICLE 3

(1) Amend Section 64213 to read as follows:

§64213. Chemical Quality Monitoring.

(a) A water supplier operating a state small water system shall sample each source of supply prior to any treatment at least once. The sample shall be analyzed by a laboratory, certified by the Department pursuant to Article 3, commencing with section 100825, of Chapter 4 of Part 1 of Division 101, Health and Safety Code, for fluoride, iron, manganese, chloride, total dissolved solids, and the inorganic chemicals listed in $\underline{Tt}able 64431$ -A, section 64431(a).

(b) No Change to Text.

(c) The results of the laboratory analyses shall be submitted to the local health officer by the state small water system no later than the 10th day of the month following receipt of the results by the state small water system. A copy of the results of the analyses and a comparison of the results with the maximum contaminant levels for those contaminants listed in \pm able 64431-A, section 64431(a), and \pm able 64444-A, section 64444, shall be distributed by the state small water system to each regular user of the water system within 90 days of receiving the results. A copy of the distribution notice shall be provided to the local health officer.

(d) No Change to Text.

NOTE: Authority cited: Sections 116340, 116350, 131052 and 131200, Health and Safety Code. Reference: Sections 116275 and 116340, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15, ARTICLE 4

(2) Amend Section 64431 to read as follows:

§64431. Maximum Contaminant Levels – Inorganic Chemicals.

(a) Public water systems shall comply with the primary MCLs in \pm table 64431-A as specified in this article.

Table 64431-A

Maximum Contaminant Levels

Inorganic Chemicals

Chemical	Maximum Contaminant Level, mg/L
Aluminum	1.
Antimony	0.006
Arsenic	0.010
Asbestos	7 MFL*
Barium	1.
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.15
Fluoride	2.0
Hexavalent chromium	0.010
Mercury	0.002
Nickel	0.1
Nitrate (as NO3)	45.
Nitrate + Nitrite (sum as nitrogen)	10.
Nitrite (as nitrogen)	1.
Perchlorate	0.006

Selenium	0.05
Thallium	0.002

*MFL = million fibers per liter; MCL for fibers exceeding 10 um in length.

NOTE: Authority cited: Sections 116293(b), 116350, 116365, <u>116365.5</u>, 116375, <u>131052</u> and 131200, Health and Safety Code. Reference: Sections 116365, <u>116365.5</u>, <u>and</u> 116470, <u>131050 and 131051</u>, Health and Safety Code.

(3) Amend Section 64432 to read as follows:

§64432. Monitoring and Compliance – Inorganic Chemicals.

(a) All public water systems shall monitor to determine compliance with the nitrate and nitrite MCLs in $\mp_{\underline{t}}$ able 64431-A, pursuant to subsections (d) through (f) and \underline{Ss} ection 64432.1. All community and nontransient-noncommunity water systems shall monitor to determine compliance with the perchlorate MCL, pursuant to subsections (d), (e), (l), and \underline{Ss} ection 64432.3. All community and nontransient-noncommunity water systems shall also monitor to determine compliance with the other MCLs in $\pm_{\underline{t}}$ able 64431-A, pursuant to subsections (b) through (o) and, for asbestos, \underline{Ss} ection 64432.2. Monitoring shall be conducted in the year designated by the Department of each compliance period beginning with the compliance period starting January 1, 1993.

(b) Unless directed otherwise by the Department, each community and nontransient-noncommunity water system shall initiate monitoring for an inorganic chemical within six months following the effective date of the regulation establishing the MCL for the chemical and the addition of the chemical to \pm table 64431-A.

(1) If otherwise performed in accordance with this section, groundwater monitoring for an inorganic chemical performed no more than two years prior to the effective date of the regulation establishing the MCL may be used to satisfy the requirement for initiating monitoring within six months following such effective date. (2) For routine monitoring required in subsection (c), chromium monitoring may be used in lieu of hexavalent chromium monitoring if the chromium results are less than the chromium DLR set forth in table 64432-A.

(c) Unless more frequent monitoring is required pursuant to this chapter, the frequency of monitoring for the inorganic chemicals listed in \pm table 64431-A, except for asbestos, nitrate/nitrite, and perchlorate, shall be as follows:

(1) Each compliance period, all community and nontransient-noncommunity systems using groundwater shall monitor once during the year designated by the Department. The Department will designate the year based on historical monitoring frequency and laboratory capacity. All community and nontransient-noncommunity systems using approved surface water shall monitor annually. All systems monitoring at distribution entry points which have combined surface and groundwater sources shall monitor annually.

(2) Quarterly samples shall be collected and analyzed for any chemical if analyses of such samples indicate a continuous or persistent trend toward higher levels of that chemical, based on an evaluation of previous data.

(d) For the purposes of <u>S</u>ections 64432, 64432.1, 64432.2, and 64432.3, detection shall be defined by the detection limits for purposes of reporting (DLRs) in \pm table 64432-A.

Table 64432-A

Detection Limits for Purposes of Reporting (DLRs) for Regulated Inorganic Chemicals

Chemical	Detection Limit for Purposes of Reporting (DLR)
	(mg/L)
Aluminum	0.05
Antimony	0.006
Arsenic	0.002

Asbestos	0.2 MFL>10um*
Barium	0.1
Beryllium	0.001
Cadmium	0.001
Chromium	0.01
Cyanide	0.1
Fluoride	0.1
Hexavalent chromium	<u>0.001</u>
Mercury	0.001
Nickel	0.01
Nitrate (as NO3)	2.
Nitrite (as nitrogen)	0.4
Perchlorate	0.004
Selenium	0.005
Thallium	0.001

* MFL=million fibers per liter; DLR for fibers exceeding 10 um in length.

(e) Samples shall be collected from each water source or a supplier may collect a minimum of one sample at every entry point to the distribution system which is representative of each source after treatment. The system shall collect each sample at the same sampling site, unless a change is approved by the Department.

(f) A water system may request approval from the Department to composite samples from up to five sampling sites, provided that the number of sites to be composited is less than the ratio of the MCL to the DLR. Approval will be based on a review of three years of historical data, well construction and aquifer information for groundwater, and intake location, similarity of sources, and watershed characteristics for surface water. Compositing shall be done in the laboratory.

(1) Systems serving more than 3,300 persons shall composite only from sampling sites within a single system. Systems serving 3,300 persons or less may composite among different systems up to the 5-sample limit.

(2) If any inorganic chemical is detected in the composite sample at a level equal to or greater than one fifth of the MCL, a follow-up sample shall be analyzed within 14 days from each sampling site included in the composite for the contaminants which exceeded the one-fifth-MCL level. If available, duplicates of the original sample taken from each sampling site used in the composite may be used instead of resampling; the analytical results shall be reported within 14 days. The water supplier may collect up to two additional samples each from one or more of the sources to confirm the result(s).

(3) Compliance for each site shall be determined on the basis of the individual follow-up samples, or on the average of the follow-up and confirmation sample(s) if the supplier collects confirmation sample(s) for each detection.

(g) If the level of any inorganic chemical, except for nitrate, nitrite, nitrate plus nitrite, or perchlorate, exceeds the MCL, the water supplier shall do one of the following:

(1) Inform the Department within 48 hours and monitor quarterly beginning in the next quarter after the exceedance occurred; or

(2) Inform the Department within seven days from the receipt of the analysis and, as confirmation, collect one additional sample within 14 days from receipt of the analysis. If the average of the two samples collected exceeds the MCL, this information shall be reported to the Department within 48 hours and the water supplier shall monitor quarterly beginning in the next quarter after the exceedance occurred.

(h) If the concentration of an inorganic chemical exceeds ten times the MCL, within 48 hours of receipt of the result the water supplier shall notify the Department and resample as confirmation. The water supplier shall notify the Department of the result(s) of the confirmation sample(s) within 24 hours of receipt of the confirmation result(s).

(1) If the average concentration of the original and confirmation sample(s) is less than or equal to ten times the MCL, the water supplier shall monitor quarterly beginning in the quarter following the quarter in which the exceedance occurred. (2) If the average concentration of the original and confirmation sample(s) exceeds ten times the MCL, the water supplier shall, if directed by the Department;

(A) ilmmediately discontinue use of the contaminated water source; and

(B) <u>nNot</u> return the source to service without written approval from the Department.

(i) Compliance with the MCLs shall be determined by a running annual average; if any one sample would cause the annual average to exceed the MCL, the system is immediately in violation. If a system takes more than one sample in a quarter, the average of all the results for that quarter shall be used when calculating the running annual average. If a system fails to complete four consecutive quarters of monitoring, the running annual average shall be based on an average of the available data.

(j) If a system using groundwater has collected a minimum of two quarterly samples or a system using approved surface water has collected a minimum of four quarterly samples and the sample results have been below the MCL, the system may apply to the Department for a reduction in monitoring frequency.

(k) Water quality data collected prior to January 1, 1990, and/or data collected in a manner inconsistent with this section shall not be used in the determination of compliance with the monitoring requirements for inorganic chemicals.

(I) Water quality data collected in compliance with the monitoring requirements of this section by a wholesaler providing water to a public water system shall be acceptable for use by that system for compliance with the monitoring requirements of this section.

(m) A water system may apply to the Department for a waiver from the monitoring frequencies specified in <u>paragraphsubsection</u> (c)(1)-of this section, if the system has conducted at least three rounds of monitoring (three periods for groundwater sources or three years for approved surface water sources) and all previous analytical results are less than the MCL. The water system shall specify the

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basis for its request. If granted a waiver, a system shall collect a minimum of one sample per source while the waiver is in effect and the term of the waiver shall not exceed one compliance cycle (i.e., nine years).

(n) A water system may be eligible for a waiver from the monitoring frequencies for cyanide specified in <u>paragraphsubsection</u> (c)(1) of this section without any prior monitoring if it is able to document that it is not vulnerable to cyanide contamination pursuant to the requirements in section 64445(d)(1) or (d)(2).

(o) Transient-noncommunity water systems shall monitor for the inorganic chemicals in \pm table 64431-A as follows:

(1) All sources shall be monitored at least once for fluoride; and

(2) Surface water sources for parks and other facilities with an average daily population use of more than 1,000 people and/or which are determined to be subject to potential contamination based on a sanitary survey shall be monitored at the same frequency as community water systems.

(p) A community or nontransient-noncommunity water system that provides disinfection shall, if directed by the Department based on the water system's operations and the extent to which the system's chromium source monitoring results exceed 0.010 mg/L, conduct a Department-approved distribution system chromium speciation study. The study shall include, but not be limited to, quarterly monitoring of chromium, hexavalent chromium, and water quality parameters affecting speciation.

NOTE: Authority cited: Sections 116293(b), <u>116350</u>, 116375, <u>131052</u> and 131200, Health and Safety Code. Reference: Sections 116385, <u>131050 and 131051</u>, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15, ARTICLE 12

(4) Amend Section 64447.2 to read as follows:

§64447.2. Best Available Technologies (BAT) – Inorganic Chemicals.

The technologies listed in \pm table 64447.2-A are the best available technology, treatment techniques, or other means available for achieving compliance with the MCLs in \pm table 64431-A for inorganic chemicals.

Table 64447.2-A

Best Available Technologies (BATs) Inorganic Chemicals

Chemical	Best Available Technologies (BATs)
Aluminum	10
Antimony	2, 7
Arsenic	1, 2, 5, 6, 7, 9, 13
Asbestos	2, 3, 8
Barium	5, 6, 7, 9
Beryllium	1, 2, 5, 6, 7
Cadmium	2, 5, 6, 7
Chromium	2, 5, 6 ^a , 7
Cyanide	5, 7, 11
Fluoride	1
Hexavalent chromium	<u>2^d, 5, 7</u>
Mercury	2 ^b , 4, 6 ^b , 7 ^b
Nickel	5, 6, 7
Nitrate	5, 7, 9
Nitrite	5, 7

Perchlorate	5, 12
Selenium	1, 2 ^c , 6, 7, 9
Thallium	1, 5

^aBAT for <u>Cchromium III (trivalent chromium)</u> only.

^bBAT only if influent mercury concentrations <10 ug/L.

^cBAT for <u>S</u>elenium IV only.

^dBAT for hexavalent chromium requires reduction to chromium III (trivalent chromium) prior to coagulation/filtration.

Key to BATs in \pm table 64447.2:

- 1 = Activated Alumina
- 2 = Coagulation/Filtration (not BAT for systems < 500 service connections)
- 3 = Direct and Diatomite Filtration
- 4 = Granular Activated Carbon
- 5 = Ion Exchange
- 6 = Lime Softening (not BAT for systems < 500 service connections)
- 7 = Reverse Osmosis
- 8 = Corrosion Control
- 9 = Electrodialysis
- 10 = Optimizing treatment and reducing aluminum added
- 11 = Chlorine oxidation
- 12 = Biological fluidized bed reactor
- 13 = Oxidation/Filtration

NOTE: Authority cited: Sections 116293(b), <u>116350, 116370, 116375, 131052</u> and 131200, Health and Safety Code. Reference: Sections 116350, 131050 and 131051<u>116370</u>, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15, ARTICLE 18

(5) Amend Section 64463 to read as follows:

§64463. General Public Notification Requirements.

(a) Each public (community, nontransient-noncommunity and transientnoncommunity) water system shall give public notice to persons served by the water system pursuant to this article.

(b) Each water system required to give public notice shall submit the notice to the Department, in English, for approval prior to distribution or posting, unless otherwise directed by the Department.

(c) Each wholesaler shall give public notice to the owner or operator of each of its retailer systems. A retailer is responsible for providing public notice to the persons it serves. If the retailer arranges for the wholesaler to provide the notification, the retailer shall notify the Department prior to the notice being given.

(d) Each water system that has a violation of any of the regulatory requirements specified in subsections 64463.1(a), 64463.4(a), or 64463.7(a) in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system may limit distribution of the notice to only persons served by that portion of the system that is out of compliance, if the Department has granted written approval on the basis of a review of the water system and the data leading to the violation or occurrence for which notice is being given.

(e) Each water system shall give new customers public notice of any acute violation as specified in subsection 64463.1(a) that occurred within the previous thirty days, any continuing violation, the existence of a variance or exemption, and/or any other ongoing occurrence that the Department has determined poses a potential risk of adverse effects on human health [based on a review of estimated exposures and

toxicological data associated with the contaminant(s)] and requires a public notice. Notice to new customers shall be given as follows:

(1) Community water systems shall give a copy of the most recent public notice prior to or at the time service begins; and

(2) Noncommunity water systems shall post the most recent public notice in conspicuous locations for as long as the violation, variance, exemption, or other occurrence continues.

NOTE: Authority cited: Sections 116325, 116350, and 116375, 131052 and 131200, Health and Safety Code. Reference: Section 116450, Health and Safety Code.

(6) Amend Section 64465 to read as follows:

§64465. Public Notice Content and Format.

(a) Each public notice given pursuant to this article, except Tier 3 public notices for variances and exemptions pursuant to subsection (b), shall contain the following:

(1) A description of the violation or occurrence, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);

(2) The date(s) of the violation or occurrence;

(3) Any potential adverse health effects from the violation or occurrence, including the appropriate standard health effects language from appendices 64465-A through G;

(4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in drinking water;

(5) Whether alternative water supplies should be used;

(6) What actions consumers should take, including when they should seek medical help, if known;

(7) What the water system is doing to correct the violation or occurrence;

(8) When the water system expects to return to compliance or resolve the occurrence;

(9) The name, business address, and phone number of the water system owner, operator, or designee of the water system as a source of additional information concerning the public notice;

(10) A statement to encourage the public notice recipient to distribute the public notice to other persons served, using the following standard language: "Please share this information with all the other people who drink this water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail<u>.</u>"; and

(11) For a water system with a monitoring and testing procedure violation, this language shall be included: "We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period dates], we ['did not monitor or test' or 'did not complete all monitoring or testing'] for [contaminant(s)], and therefore, cannot be sure of the quality of your drinking water during that time."

(b) A Tier 3 public notice for a water system operating under a variance or exemption shall include the elements in this subsection. If a water system has violated its variance or exemption conditions, the public notice shall also include the elements in subsection (a).

(1) An explanation of the reasons for the variance or exemption;

(2) The date on which the variance or exemption was issued;

(3) A brief status report on the steps the water system is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and

(4) A notice of any opportunity for public input in the review of the variance or exemption.

(c) Each public notice given pursuant to this article shall contain information in Spanish regarding the importance of the notice, or contain a telephone number or address where Spanish-speaking residents may contact the water system to obtain a translated copy of the public notice or assistance in Spanish. For each non-English speaking group other than Spanish-speaking that exceeds 1,000 residents or 10% of the residents in the community served, whichever is less, the public notice shall:

(1) Contain information in the appropriate language(s) regarding the importance of the notice, or

(2) Contain a telephone number or address where such residents may contact the water system to obtain a translated copy of the notice or assistance in the appropriate language. A public water system providing notice pursuant to this article shall comply with the following bilingual-related requirements:

(1) For a Tier 1 public notice:

(A) The notice shall be provided in English, Spanish, and the language spoken by any non-English-speaking group exceeding 10 percent of the persons served by the public water system, and the notice shall include a telephone number or address where such individuals may contact the public water system for assistance; and

(B) If any non-English-speaking group exceeds 1,000 persons served by the public water system, but does not exceed 10 percent served, the notice shall include information in the appropriate language(s) regarding the importance of the notice, and

the telephone number or address where such individuals may contact the public water system to obtain a translated copy of the notice from the public water system or assistance in the appropriate language:

(2) For a Tier 2 or Tier 3 public notice:

(A) The notice shall contain information in Spanish regarding the importance of the notice, or contain a telephone number or address where Spanish-speaking residents may contact the public water system to obtain a translated copy of the notice or assistance in Spanish; and

(B) When a non-English speaking group other than Spanish-speaking exceeds 1,000 residents or 10 percent of the residents served by the public water system, the notice shall include:

<u>1. Information in the appropriate language(s) regarding the importance of the</u> <u>notice; or</u>

2. A telephone number or address where such residents may contact the public water system to obtain a translated copy of the notice or assistance in the appropriate language; and

(3) For a public water system subject to the Dymally-Alatorre Bilingual Services Act, Chapter 17.5, Division 7, of the Government Code (commencing with section 7290), meeting the requirements of this Article may not ensure compliance with the Dymally-Alatorre Bilingual Services Act.

(d) Each public notice given pursuant to this article shall:

(1) Be displayed such that it catches people's attention when printed or posted and be formatted in such a way that the message in the public notice can be understood at the eighth-grade level; (2) Not contain technical language beyond an eighth-grade level or print smaller than 12 point; and

(3) Not contain language that minimizes or contradicts the information being given in the public notice.

Appendix 64465-A. Health Effects Language Microbiological Contaminants.

Contaminant	Health Effects I <u>L</u> anguage
Total Coliform	No Change to Text.
Fecal coliform/ <i>E.Coli coli</i>	No Change to Text.
Turbidity	No Change to Text.

Appendix 64465-B. Health Effects Language

Surface Water Treatment

Contaminant	Health Effects I <u>L</u> anguage
Giardia lamblia	No Change to Text.
Viruses	
Heterotrophic plate count bacteria	
Legionella	
Cryptosporidium	

Appendix 64465-C. Health Effects Language

Radioactive Contaminants.

Contaminant	Health Effects Language
Gross Beta particle activity	No Change to Text.
Strontium-90	No Change to Text.
Tritium	No Change to Text.
Gross Alpha particle activity	No Change to Text.
Combined Radium 226/228	No Change to Text.

Total Radium	Some people who drink water containing
(for nontransient noncommunity	radium 223, 224, or 226 in excess of the MCL
water systems)	over many years may have an increased risk
	of getting cancer.
Uranium	No Change to Text.

Appendix 64465-D. Health Effects Language Inorganic Contaminants.

Contaminant	Health Effects Language
Aluminum	No Change to Text.
Antimony	No Change to Text.
Arsenic	No Change to Text.
Asbestos	No Change to Text.
Barium	No Change to Text.
Beryllium	No Change to Text.
Cadmium	No Change to Text.
Chromium	No Change to Text.
Copper	No Change to Text.
Cyanide	No Change to Text.
Fluoride	No Change to Text.
Hexavalent chromium	Some people who drink water containing
	hexavalent chromium in excess of the MCL
	over many years may have an increased risk
	of getting cancer.
Lead	No Change to Text.
Mercury	No Change to Text.
Nickel	No Change to Text.
Nitrate	No Change to Text.
Nitrite	No Change to Text.
Perchlorate	No Change to Text.

Selenium	No Change to Text.
Thallium	No Change to Text.

Appendix 64465-E. Health Effects Language

Volatile Organic Contaminants.

Contaminant	Health Effects Language
Benzene	No Change to Text.
Carbon Tetrachloride	No Change to Text.
1,2-Dichlorobenzene	No Change to Text.
1,4-Dichlorobenzene	No Change to Text.
1,1-Dichloroethane	No Change to Text.
1,2-Dichloroethane	Some people who use water containing 1,2-
	dichloroethane1,2-dichloroethane in excess of
	the MCL over many years may have an
	increased risk of getting cancer.
1,1-Dichloroethylene	No Change to Text.
cis-1,2-Dichloroethylene	No Change to Text.
trans-1,2-Dichloroethylene	No Change to Text.
Dichloromethane	No Change to Text.
1,2-Dichloropropane	No Change to Text.
1,3-Dichloropropene	No Change to Text.
Ethylbenzene	No Change to Text.
Methyl-tert-butyl ether	No Change to Text.
Monochlorobenzene	No Change to Text.
Styrene	No Change to Text.
1,1,2,2-Tetrachloroethane	No Change to Text.
Tetrachloroethylene	No Change to Text.
1,2,4-Trichlorobenzene	No Change to Text.
1,1,1,-Trichloroethane	No Change to Text.
1,1,2-Trichloroethane	No Change to Text.

Trichloroethylene (TCE)	No Change to Text.
Toluene	No Change to Text.
Trichlorofluoromethane	No Change to Text.
1,1,2-Trichloro-1,2,2-trifluoroethane	No Change to Text.
Vinyl Chloride	No Change to Text.
Xylenes	No Change to Text.

Appendix 64465-F. Health Effects Language

Synthetic Organic Contaminants.

Contaminant	Health Effects Language
2,4-D	No Change to Text.
2,4,5-TP (Silvex)	No Change to Text.
Alachlor	No Change to Text.
Atrazine	No Change to Text.
Bentazon	Some people who drink water containing
	bentazon in excess of the MCL over y many
	years may experience prostate and
	gastrointestinal effects.
Benzo(a)pyrene [PAH]	No Change to Text.
Carbofuran	No Change to Text.
Chlordane	No Change to Text.
Dalapon	No Change to Text.
Dibromochloropropane (DBCP)	No Change to Text.
Di (2-ethylhexyl) adipate	No Change to Text.
Di (2-ethylhexyl) phthalate	No Change to Text.
Dinoseb	No Change to Text.
Dioxin (2,3,7,8-TCDD):	No Change to Text.
Diquat	No Change to Text.
Endothall	No Change to Text.
Endrin	No Change to Text.

Ethylene dibromide (EDB)	No Change to Text.
Glyphosate	No Change to Text.
Heptachlor	No Change to Text.
Heptachlor epoxide	No Change to Text.
Hexachlorobenzene	No Change to Text.
Hexachlorocyclopentadiene	No Change to Text.
Lindane	No Change to Text.
Methoxychlor	No Change to Text.
Molinate (Ordram)	No Change to Text.
Oxamyl [Vydate]:	No Change to Text.
PCBs [Polychlorinated biphenyls]:	No Change to Text.
Pentachlorophenol	No Change to Text.
Picloram	No Change to Text.
Simazine	No Change to Text.
Thiobencarb	No Change to Text.
Toxaphene	No Change to Text.

Appendix 64465-G. Health Effects Language

Disinfection Byproducts, Byproduct Precursors, and Disinfectant Residuals

Contaminant	Health Effects I <u>L</u> anguage
TTHMs [Total Trihalomethanes]:	No Change to Text.
Haloacetic Acids	No Change to Text.
Bromate	No Change to Text.
Chloramines	No Change to Text.
Chlorine	No Change to Text.
Chlorite	No Change to Text.
Chlorine dioxide (2 consecutive daily	No Change to Text.
samples at the entry point to the	
distribution system that are greater	
than the MRDL)	

Chlorine dioxide (one or more	No Change to Text.
distribution system samples are	
above the MRDL .)	
Control of DBP precursors (TOC)	No Change to Text.

Appendix 64465-H. Health Effects Language

Other Treatment Techniques

Contaminant	Health Effects I <u>L</u> anguage
Acrylamide	No Change to Text.
Epichlorohydrin	No Change to Text.

NOTE: Authority cited: Sections 116325, 116350, 116375, <u>131052</u> and 131200, Health and Safety Code. Reference: Sections 116450-and <u>131051</u>, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15, ARTICLE 20

(7) Amend Section 64481 to read as follows:

§64481. Content of the Consumer Confidence Report.

(a) No Change to Text.

(b) No Change to Text.

(c) If any of the following are detected, information for each pursuant to subsection (d) shall be included in the Consumer Confidence Report:

(1) Contaminants subject to an MCL, MRDL, regulatory action level, or treatment technique (regulated contaminants), as specified in sections 64426.1, 64431, 64442, 64443, 64444, 64448, 64449, 64533, 64533.5, 64536, 64536.2, 64653 and 64678;

(2) Contaminants specified in 40 Code of Federal Regulations part 141.40 (7-1-2007 edition) for which monitoring is required (unregulated contaminants);

(3) Microbial contaminants detected as provided under subsection (e); and

(4) Sodium and hardness.

(d) For contaminants identified in subsection (c), the water system shall include in the Consumer Confidence Report one table or several adjacent tables that have been developed pursuant to this subsection. Any additional monitoring results that a water system chooses to include in its Consumer Confidence Report shall be displayed separately.

(1) No Change to Text.

(2) For detected regulated contaminants referenced in subsection (c)(1), the table(s) shall include:

(A) through (C) No Change to Text.

(D) For detected contaminants subject to an MCL, except turbidity and total coliforms, the sample result(s) collected at compliance monitoring sampling points shall be reported in the same units as the MCL as follows:

1. No Change to Text.

2. No Change to Text.

3. When compliance with the MCL is determined on a system-wide basis by calculating a running annual average of all monitoring location averages: the highest running annual average and the range of sample results from all the sampling points. The water system shall include individual sample results for the Individual Distribution System Evaluation (IDSE) conducted pursuant to chapter 15.5, section 64530(c), when determining the range of TTHM and HAA5 results to be reported for the calendar year that the IDSE samples were taken.

- 4. No Change to Text.
- 5. No Change to Text.
- (E) through (H) No Change to Text.

 (I) The likely source(s) of <u>any</u> detected contaminants for any detected contaminant with<u>having</u> an MCL, <u>MRDL</u>, regulatory action level, or treatment technique</u>.
If the water system lacks specific information on the likely source, the table(s) shall include one or more of the typical sources for that contaminant listed in appendix 64481-A or 64481-B that are most applicable to the system.

- (3) No Change to Text.
- (4) No Change to Text.
- (e) No Change to Text.
- (f) No Change to Text.

(g) For the year covered by the report, the Consumer Confidence Report shall note any violations of paragraphs (1) through (7) and give related information, including any potential adverse health effects, and the steps the system has taken to correct the violation.

(1) No Change to Text.

(2) Filtration, disinfection, and recycled provisions prescribed by sections 64652, 64652.5, 64653, 64653(b) or 64654. For systems that have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of such equipment or processes that constitutes a violation, the Consumer Confidence Report shall include the following language health effects language pursuant to appendix 64465-B as part of the explanation of potential adverse health effects: "Inadequately treated water may contain organisms that can cause illness when consumed. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.".

(3) through (7) No Change to Text.

(h) through (k) No Change to Text.

(I) A Consumer Confidence Report shall contain information in Spanish regarding the importance of the report or contain a telephone number or address where Spanish-speaking residents may contact the system to obtain a translated copy of the report or assistance in Spanish. For each non-English speaking group other than Spanish-speaking that exceeds 1,000 residents or 10% of the residents in a community, whichever is less, the Consumer Confidence Report shall contain information in the appropriate language(s) regarding the importance of the report or contain a telephone number or address where such residents may contact the system to obtain a translated copy of the report or assistance in the appropriate language.

(m) No Change to Text.

Appendix 64481-A.

Typical Origins of Contaminants with Primary MCLs, MRDLs, Regulatory Action Levels, and Treatment Techniques

Contaminant

Major origins in drinking water

Microbiological

Total coliform bacteria	No Change to Text.
Fecal coliform and <i>E. coli</i>	No Change to Text.
Turbidity	No Change to Text.

Surface water treatment

Giardia lamblia	No Change to Text.
Viruses	
Heterotrophic plate count bacteria	
Legionella	
Cryptosporidium	

Radioactive

Gross Beta particle activity	No Change to Text.
Strontium-90	No Change to Text.
Tritium	No Change to Text.
Gross Alpha particle activity	No Change to Text.
Combined radium 226/228	No Change to Text.
Total Radium (for nontransient	Erosion of natural deposits
noncommunity water systems)	
Uranium	No Change to Text.

Inorganic

Aluminum	No Change to Text.
Antimony	No Change to Text.

Arsenic	No Change to Text.
Asbestos	No Change to Text.
Barium	No Change to Text.
Beryllium	No Change to Text.
Cadmium	No Change to Text.
Chromium	No Change to Text.
Copper	No Change to Text.
Cyanide	No Change to Text.
Fluoride	No Change to Text.
Hexavalent chromium	Discharge from electroplating factories,
	leather tanneries, wood preservation,
	chemical synthesis, refractory production,
	and textile manufacturing facilities; erosion of
	natural deposits
Lead	No Change to Text.
Mercury	No Change to Text.
Nickel	No Change to Text.
Nitrate	No Change to Text.
Nitrite	No Change to Text.
Perchlorate	No Change to Text.
Selenium	No Change to Text.
Thallium	No Change to Text.

Synthetic organic

2,4-D	No Change to Text.
2,4,5-TP (Silvex)	No Change to Text.
Acrylamide	No Change to Text.
Alachlor	No Change to Text.
Atrazine	No Change to Text.
Bentazon	No Change to Text.

Benzo(a)pyrene [PAH]	No Change to Text.
Carbofuran	No Change to Text.
Chlordane	No Change to Text.
Dalapon	No Change to Text.
Dibromochloropropane (DBCP)	No Change to Text.
Di(2-ethylhexyl) adipate	No Change to Text.
Di(2-ethylhexyl) phthalate	No Change to Text.
Dinoseb	No Change to Text.
Dioxin [2,3,7,8-TCDD]	No Change to Text.
Diquat	No Change to Text.
Endothall	No Change to Text.
Endrin	No Change to Text.
Epichlorohydrin	No Change to Text.
Ethylene dibromide (EDB)	No Change to Text.
Glyphosate	No Change to Text.
Heptachlor	No Change to Text.
Heptachlor epoxide	No Change to Text.
Hexachlorobenzene	No Change to Text.
Hexachlorocyclopentadiene	No Change to Text.
Lindane	No Change to Text.
Methoxychlor	No Change to Text.
Molinate [Ordram]	No Change to Text.
Oxamyl [Vydate]	No Change to Text.
Pentachlorophenol	No Change to Text.
Picloram	No Change to Text.
Polychlorinated biphenyls [PCBs]	No Change to Text.
Simazine	No Change to Text.
Thiobencarb	No Change to Text.
Toxaphene	No Change to Text.

Volatile organic

Benzene	No Change to Text.
Carbon tetrachloride	No Change to Text.
1,2-Dichlorobenzene	No Change to Text.
1,4-Dichlorobenzene	No Change to Text.
1,1-Dichloroethane	No Change to Text.
1,2-Dichloroethane	No Change to Text.
1,1-Dichloroethylene	No Change to Text.
cis-1,2-Dichloroethylene	No Change to Text.
trans-1,2-Dichloroethylene	No Change to Text.
Dichloromethane	No Change to Text.
1,2-Dichloropropane	No Change to Text.
1,3-Dichloropropene	No Change to Text.
Ethylbenzene	No Change to Text.
Methyl-tert-butyl ether (MTBE)	No Change to Text.
Monochlorobenzene	No Change to Text.
Styrene	No Change to Text.
1,1,2,2-Tetrachloroethane	No Change to Text.
Tetrachloroethylene (PCE)	No Change to Text.
1,2,4-Trichlorobenzene	No Change to Text.
1,1,1-Trichloroethane	No Change to Text.
1,1,2-Trichloroethane	No Change to Text.
Trichloroethylene (TCE)	No Change to Text.
Toluene	No Change to Text.
Trichlorofluoromethane	No Change to Text.
1,1,2-Trichloro-1,2,2-Trifluoroethane	No Change to Text.
Vinyl chloride	No Change to Text.
Xylenes	No Change to Text.
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Disinfection Byproducts, Disinfection Byproduct Precursors, and Disinfectant

Residuals

Total trihalomethanes (TTHM)	No Change to Text.
Haloacetic acids (five) (HAA5)	No Change to Text.
Bromate	No Change to Text.
Chloramines	No Change to Text.
Chlorine	No Change to Text.
Chlorite	No Change to Text.
Chlorine dioxide	No Change to Text.
Control of disinfection byproduct	No Change to Text.
precursors (Total Organic Carbon)	

Appendix 64481-B.

Typical Origins of Contaminants with Secondary MCLs

Contaminant

Major origins in drinking water

Aluminum	No Change to Text.
Color	No Change to Text.
Copper	No Change to Text.
Foaming Agents (MBAS)	No Change to Text.
Iron	No Change to Text.
Manganese	No Change to Text.
Methyl-tert-butyl ether (MTBE)	No Change to Text.
OdorThreshold	No Change to Text.
Silver	No Change to Text.
Thiobencarb	No Change to Text.
Turbidity	No Change to Text.
Zinc	No Change to Text.
Total dissolved solids	No Change to Text.
Specific Conductance	No Change to Text.
Chloride	No Change to Text.

Sulfate	No Change to Text.
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NOTE: Authority cited: Sections 116350, 116375, <u>131052</u> and 131200, Health and Safety Code. Reference: Sections 116275, <u>and 116470 and 131051</u>, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15.5, ARTICLE 1

(8) Amend Section 64530 to read as follows:

§64530. Applicability of This Chapter.

- (a) No Change to Text.
- (b) No Change to Text.

(c) Community water systems, and nontransient noncommunity water systems serving at least 10,000 persons, using a primary or residual disinfectant other than ultraviolet light or delivering water that has been treated with a primary or residual disinfectant other than ultraviolet light shall comply with the Individual Distribution System Evaluation (IDSE) requirements of 40 Code of Federal Regulations, parts 141.600 and either 141.601 and 141.605, 141.602 and 141.605, 141.603, or 141.604 (71 Fed. Reg. 483388 (January 4, 2006); as amended at 74 Fed. Reg. 3095830953 (June 29, 2009)), which are incorporated by reference.

(d) No Change to Text.

(1) Comply with the applicable TTHM and HAA5 compliance date in table 64530-A;

Table 64530-A

TTHM and HAA5 Compliance Dates

Shall comply with TTHM and HAA5 monitoring pursuant to section 64534.2(d) by...

Systems of this type...

(a) Systems that are	(1) ≥100,000	April 1, 2012
not part of a combined		
distribution system		
and systems that	(2) 50,000 -	October 1, 2012
serve the largest	99,999	
population in the		
combined distribution		
system and serving a	(3) 10,000 –	October 1, 2013
population of	49,999	

(4) <10,000	October 1, 2013, if no <i>Cryptosporidium</i> monitoring is required pursuant to 40 Code of Federal Regulations part 141.701(a)(4) (71 Fed. Reg. 770<u>654</u> (January 5, 2006)), which is incorporated by reference; or
	October 1, 2014, if <i>Cryptosporidium</i> monitoring is required pursuant to 40 Code of Federal Regulations part 141.701(a)(4) or (a)(6) (71 Fed. Reg. 770 654 (January 5, 2006)), which are incorporated by reference.
(b) Other consecutive or wholesale systems that are part of a combined distribution system	At the same time as the system with the earliest compliance date in the combined distribution system.

(2) No Change to Text.

(3) No Change to Text.

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Section 116350, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15.5, ARTICLE 3

(9) Amend Section 64534 to read as follows:

§64534. General Monitoring Requirements.

(a) Except as provided in subsection (b), analyses required pursuant to this chapter shall be performed by laboratories certified by the Department to perform such analyses pursuant to Article 3, commencing with section 100825, of Chapter 4 of Part 1 of Division 101, Health and Safety Code. Unless otherwise directed by the Department, analyses shall be made in accordance with EPA approved methods as prescribed in 40 Code of Federal Regulations, part 141.131 (63 Fed. Reg. 6946669390 (December 16, 1998), as amended at 66 Fed. Reg. 37763770 (January 16, 2001), 71 Fed. Reg. 479388 (January 4, 2006), 71 Fed. Reg. 37168 (June 29, 2006), and 74 Fed. Reg. 3095830953 (June 29, 2009)), which are incorporated by reference.

(b) through (g) No Change to Text.

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116350, 116385 and 116555, Health and Safety Code.

(10) Amend Section 64534.2 to read as follows:

§64534.2. Disinfection Byproducts Monitoring.

- (a) No Change to Text.
- (1) No Change to Text.

(2) Systems on reduced monitoring shall resume monitoring at the frequency specified in column C of table 64534.2-A in the quarter immediately following the quarter in which the system exceeds 0.060 mg/L for the TTHM annual average or 0.045 mg/L for the HAA5 annual average, or 4<u>.0</u> mg/L for the source water TOC annual

average. For systems using only ground water not under the direct influence of surface water and serving fewer than 10,000 persons or for systems using approved surface water and serving fewer than 500 persons, if either the TTHM annual average is >0.080 mg/L or the HAA5 annual average is >0.060 mg/L, the system shall go to increased monitoring identified in column D of table 64534.2-A in the quarter immediately following the quarter in which the system exceeds 0.080 mg/L or 0.060 mg/L for the TTHM and HAA5 annual averages, respectively; and

- (3) No Change to Text.
- (b) No Change to Text.
- (c) No Change to Text.

(1) Systems shall take one sample per month for each treatment plant in the system using ozone. Samples shall be taken at the entrance to the distribution system while the ozonation system is operating under normal conditions;

(2) Systems may reduce bromate monitoring from monthly to once per quarter, if the system's running annual average bromate concentration is ≤0.0025 mg/L based on monthly bromate measurements under paragraph (1) for the most recent four quarters, with samples analyzed using Method 317.0 Revision 2.0, 321.8, or 326.0. The system shall notify the Department in writing within 30 days of the change in monitoring frequency. The system shall continue monthly bromide monitoring of the source water to remain on reduced bromate monitoring; and

(3) Systems shall resume routine bromate monitoring pursuant to paragraph (1) and notify the Department in writing within 30 days of the change in monitoring frequency if:

(A) Tthe running annual average bromate concentration, computed quarterly, is greater than 0.0025 mg/L; or

(B) The running annual average source water bromide concentration, computed quarterly, is equal to or greater than 0.05 mg/L based upon representative monthly measurements.

(d) No Change to Text.

(1) No Change to Text.

(2) Undisinfected systems that begin using a disinfectant other than UV light after the applicable dates in 40 Code of Federal Regulations, part 141.600 (71 Fed. Reg. 483388, January 4, 2006), which is incorporated by reference, shall consult with the Department to identify compliance monitoring locations for this subsection. Systems shall then develop a monitoring plan in accordance with section 64534.8 that includes those monitoring locations;

(3) through (4) No Change to Text.

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116350, 116385 and 116555, Health and Safety Code.

(11) Amend Section 64534.8 to read as follows:

§64534.8. Monitoring Plans.

- (a) No Change to Text.
- (b) No Change to Text.
- (1) No Change to Text.
- (2) No Change to Text.

(3) For compliance monitoring pursuant to section 64534.2(d), monitoring dates and the elements specified in subparagraphs (1) and (2).

(c) No Change to Text.

(d) No Change to Text.

(1) Do not have sufficient TTHM and HAA5 compliance monitoring locations under section 64534.2(a) to identify the required number of TTHM and HAA5 compliance monitoring locations indicated in 40 Code of Federal Regulations part 141.605(b) (71 Fed. Reg. 487388 (January 4, 2006), as amended at 74 Fed. Reg. 30953 (June 29, 2009)), which is incorporated by reference, shall:

(A) No Change to Text.

(B) No Change to Text.

(2) Have more TTHM and HAA5 compliance monitoring locations under section 64534.2(a) than required for TTHM and HAA5 compliance monitoring indicated in 40 Code of Federal Regulations part 141.605(b) (71 Fed. Reg. 487<u>388</u> (January 4, 2006), as amended at 74 Fed. Reg. 30953 (June 29, 2009)), which is incorporated by reference, shall identify the locations to use by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of compliance monitoring locations have been identified.

(e) No Change to Text.

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116350, 116385, 116530 and 116555, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 15.5, ARTICLE 4

(12) Amend Section 64535.2 to read as follows:

§64535.2. Determining Disinfection Byproduct Compliance.

(a) During the first year of monitoring for disinfection byproducts under sections 64534.2(a), (b), and (c), the system shall comply with paragraphs (1) through (3). During the first year of monitoring for TTHM and HAA5 under section 64534.2(d), the system shall comply with paragraphs (1) through (3) at each monitoring location:

(1) The <u>averagesum</u> of the first quarter's results, <u>divided by four</u>, shall not exceed four times the MCLs specified in section 64533.

(2) The <u>averagesum</u> of the first and second quarter's results, <u>divided by four</u>, shall not exceed two times the MCLs specified in section 64533.

(3) The <u>averagesum</u> of the first, second, and third quarter's results, <u>divided by</u> <u>four</u>, shall not exceed 1.33 times the MCLs specified in section 64533.

(b) TTHM and HAA5 MCL compliance, as monitored pursuant to section 64534.2-(a), shall be determined as follows:

(1) through (4) No Change to Text.

(c) No Change to Text.

(d) Compliance for chlorite shall be based on the results of samples collected by the system pursuant to sections 64534.2(b).

(1) No Change to Text.

(2) If the average of an individual sample from the three-sample set taken pursuant to <u>section 64534.2(b)(2)</u> and its confirmation sample taken pursuant to section 64634.2(b)(4) exceeds the chlorite MCL, the system is in violation of the MCL and shall take the corrective action and notify and report as described in paragraph (1). If the average of the individual sample and its confirmation does not exceed the MCL, the system shall inform the Department of the results within seven days from receipt of the original analysis. Failure to take a confirmation sample pursuant to section 64534.2(b)(4) is also an MCL violation and the system shall notify and report as described in paragraph (1); and

(3) If any two consecutive daily samples taken at the entrance to the distribution system exceed the chlorite MCL and all distribution system samples taken pursuant to <u>section</u> 64534.2(b)(1) are less than or equal to the chlorite MCL, the system is in violation of the MCL and shall take corrective action to reduce the concentration of chlorite to a level below the MCL at the point of sampling. The system shall notify the public pursuant to the procedures for nonacute health risks in sections 64463, 64463.4, and 64465, including the language in appendix 64465-G, in addition to reporting to the Department pursuant to sections 64537 through 64537.6. Failure to monitor at the entrance to the distribution system is also an MCL violation and the system shall notify and report as described in this paragraph.

(e) No Change to Text.

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116350, 116450 and 116460, Health and Safety Code.

(13) Amend Section 64535.4 to read as follows:

§64535.4. Determining Disinfectant Residuals Compliance.

(a) During the first year of monitoring for disinfection residuals under section 64534.4 the system shall comply with the following:

(1) The averagesum of the first quarter's results, divided by four, shall not exceed four times the MRDLs specified in section 64533.5;

(2) The <u>averagesum</u> of the first and second quarter's results, <u>divided by four</u>, shall not exceed two times the MRDLs specified in section 64533.5; and

(3) The <u>averagesum</u> of the first, second, and third quarter's results, <u>divided by</u> <u>four</u>, shall not exceed 1.33 times the MRDLs specified in section 64533.5.

(b) No Change to Text.

(c) No Change to Text.

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116350, 116450 and 116460, Health and Safety Code.

TITLE 22, CALIFORNIA CODE OF REGULATIONS DIVISION 4, CHAPTER 17.5, ARTICLE 1

(14) Amend Section 64671.80 to read as follows:

§64671.80. Water Quality Parameter or WQP.

"Water quality parameter" or "WQP", for the purposes of this chapter, means a characteristic or constitutent constituent of water, or a water treatment chemical added to water to control corrosion.

NOTE: Authority cited: Sections 100275, 116350, 116365 and 116375, <u>131052 and</u> <u>131200</u>, Health and Safety Code. Reference: Sections 116325-116750<u>116275 and</u> <u>116350</u>, Health and Safety Code.