

**State of California
Office of Administrative Law**

In re:
Department of Public Health

**NOTICE OF APPROVAL OF REGULATORY
ACTION**

Regulatory Action:

Government Code Section 11349.3

Title 22, California Code of Regulations

OAL File No. 2014-0415-01 S

Adopt sections:

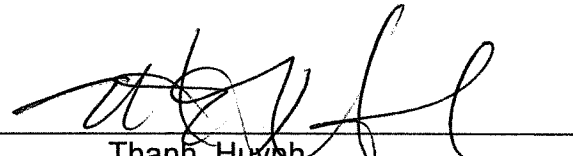
Amend sections: 64213, 64431, 64432,
64447.2, 64463, 64465,
64481, 64530, 64534,
64534.2, 64534.8, 64535.2,
64535.4, 64671.80

Repeal sections:

In this regulatory action, the Department is adopting drinking water maximum contamination levels (MCL) for hexavalent chromium and amending existing drinking water notification regulations to be consistent with statutory requirements.

OAL approves this regulatory action pursuant to section 11349.3 of the Government Code. This regulatory action becomes effective on 7/1/2014.

Date: 5/28/2014



Thanh Huynh
Senior Attorney

For: DEBRA M. CORNEZ
Director

Original: Dr. Ron Chapman, MD, MPH
Copy: Dawn Basciano

REGULAR

(See instructions on reverse)

For use by Secretary of State only

STD. 400 (REV. 01-2013)

OAL FILE NUMBERS	NOTICE FILE NUMBER Z-2013-0813-05	REGULATORY ACTION NUMBER 2014-0415-015	EMERGENCY NUMBER
For use by Office of Administrative Law (OAL) only			
NOTICE		REGULATIONS	

ENDORSED FILED
IN THE OFFICE OF
2014 MAY 28 PM 2:07

Debra Bowen
DEBRA BOWEN
SECRETARY OF STATE

2014 APR 15 PM 3:30
OFFICE OF
ADMINISTRATIVE LAW

AGENCY WITH RULEMAKING AUTHORITY
California Department of Public Health

AGENCY FILE NUMBER (if any)

A. PUBLICATION OF NOTICE (Complete for publication in Notice Register)

1. SUBJECT OF NOTICE	TITLE(S)	FIRST SECTION AFFECTED	2. REQUESTED PUBLICATION DATE
3. NOTICE TYPE <input type="checkbox"/> Notice re Proposed Regulatory Action <input type="checkbox"/> Other	4. AGENCY CONTACT PERSON	TELEPHONE NUMBER	FAX NUMBER (Optional)
OAL USE ONLY <input type="checkbox"/> Approved as Submitted <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Disapproved/Withdrawn	ACTION ON PROPOSED NOTICE	NOTICE REGISTER NUMBER 2013, 342	PUBLICATION DATE 8/23/2013

B. SUBMISSION OF REGULATIONS (Complete when submitting regulations)

1a. SUBJECT OF REGULATION(S) Hexavalent Chromium MCL	1b. ALL PREVIOUS RELATED OAL REGULATORY ACTION NUMBER(S)
2. SPECIFY CALIFORNIA CODE OF REGULATIONS TITLE(S) AND SECTION(S) (Including title 26, if toxics related)	
SECTION(S) AFFECTED (List all section number(s) individually. Attach additional sheet if needed.)	ADOPT AMEND 64213,64431,64432,64447.2,64463,64465,64481,64530,64534,64534.2,64534.8, 64535.2,64535.4,64671.80 REPEAL
TITLE(S) 22	
3. TYPE OF FILING	
<input checked="" type="checkbox"/> Regular Rulemaking (Gov. Code §11346)	<input type="checkbox"/> Certificate of Compliance: The agency officer named below certifies that this agency complied with the provisions of Gov. Code §§11346.2-11347.3 either before the emergency regulation was adopted or within the time period required by statute.
<input type="checkbox"/> Resubmittal of disapproved or withdrawn nonemergency filing (Gov. Code §§11349.3, 11349.4)	<input type="checkbox"/> Resubmittal of disapproved or withdrawn emergency filing (Gov. Code, §11346.1)
<input type="checkbox"/> Emergency (Gov. Code, §11346.1(b))	<input type="checkbox"/> Emergency Readopt (Gov. Code, §11346.1(h))
	<input type="checkbox"/> File & Print
	<input type="checkbox"/> Other (Specify) _____
4. ALL BEGINNING AND ENDING DATES OF AVAILABILITY OF MODIFIED REGULATIONS AND/OR MATERIAL ADDED TO THE RULEMAKING FILE (Cal. Code Regs. title 1, §44 and Gov. Code §11347.1)	
5. EFFECTIVE DATE OF CHANGES (Gov. Code, §§ 11343.4, 11346.1(d); Cal. Code Regs., title 1, §100)	
<input checked="" type="checkbox"/> Effective January 1, April 1, July 1, or October 1 (Gov. Code §11343.4(a))	<input type="checkbox"/> Effective on filing with Secretary of State
<input type="checkbox"/> \$100 Changes Without Regulatory Effect	<input type="checkbox"/> Effective other (Specify) _____
6. CHECK IF THESE REGULATIONS REQUIRE NOTICE TO, OR REVIEW, CONSULTATION, APPROVAL OR CONCURRENCE BY, ANOTHER AGENCY OR ENTITY	
<input checked="" type="checkbox"/> Department of Finance (Form STD. 399) (SAM §6660)	<input type="checkbox"/> Fair Political Practices Commission
<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> State Fire Marshal
7. CONTACT PERSON Dawn Basciano	TELEPHONE NUMBER 916-440-7367
FAX NUMBER (Optional)	E-MAIL ADDRESS (Optional) dawn.basciano@cdph.ca.gov

8. I certify that the attached copy of the regulation(s) is a true and correct copy of the regulation(s) identified on this form, that the information specified on this form is true and correct, and that I am the head of the agency taking this action, or a designee of the head of the agency, and am authorized to make this certification.

SIGNATURE OF AGENCY HEAD OR DESIGNEE
Belinda Whitsett
per agency request
DATE
04/15/14
TYPED NAME AND TITLE OF SIGNATORY
Belinda Whitsett, Assistant Chief Counsel

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ENDORSED APPROVED

MAY 28 2014

Office of Administrative Law

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 ~~T~~table 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 ~~T~~table 64431-A, section 64431(a), and ~~T~~table 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 Table 64431-A as specified in this article.

Table 64431-A
Maximum Contaminant Levels
Inorganic Chemicals

<i>Chemical</i>	<i>Maximum Contaminant Level, mg/L</i>
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
<u>Hexavalent chromium</u>	<u>0.010</u>
Mercury	0.002
Nickel	0.1
Nitrate (as NO ₃)	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, 116365.5, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116365, 116365.5, and 116470, ~~131050~~ and ~~131051~~, 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 ~~Table~~ 64431-A, pursuant to subsections (d) through (f) and ~~Section~~ 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 ~~Section~~ 64432.3. All community and nontransient-noncommunity water systems shall also monitor to determine compliance with the other MCLs in ~~Table~~ 64431-A, pursuant to subsections (b) through ⁽ⁿ⁾~~(e)~~ and, for asbestos, ~~Section~~ 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.

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(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 ~~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 ~~T~~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 ~~S~~sections 64432, 64432.1, 64432.2, and 64432.3, detection shall be defined by the detection limits for purposes of reporting (DLRs) in ~~T~~table 64432-A.

Table 64432-A
Detection Limits for Purposes of Reporting (DLRs) for Regulated Inorganic Chemicals

<i>Chemical</i>	<i>Detection Limit for Purposes of Reporting (DLR)</i> <i>(mg/L)</i>
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
<u>Hexavalent chromium</u>	<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) ~~immediately~~ discontinue use of the contaminated water source; and

(B) ~~Not~~ 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.

(l) 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 ~~paragraph~~subsection (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

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 ~~paragraph~~subsection (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 ~~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.

NOTE: Authority cited: Sections 116293(b), 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116385, 131050 and 131051, 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 Table 64447.2-A are the best available technology, treatment techniques, or other means available for achieving compliance with the MCLs in Table 64431-A for inorganic chemicals.

Table 64447.2-A
Best Available Technologies (BATs)
Inorganic Chemicals

<i>Chemical</i>	<i>Best Available Technologies (BATs)</i>
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
<u>Hexavalent chromium</u>	<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 Chromium III (trivalent chromium) only.

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

^cBAT for Selenium IV only.

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

Key to BATs in 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), 116350, 416370, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 416350, 131050 and 431051, 116370, 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 transient-noncommunity) 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."; 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;