CA

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), and (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), and, for asbestos, section 64432.2. Monitoring shall be conducted in the year designated by the State Board of each compliance period beginning with the compliance period starting January 1, 1993.

(b)

Unless directed otherwise by the State Board, 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. 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.

(c)

Unless more frequent monitoring is required pursuant to this Chapter, the frequency of monitoring for the inorganic chemicals listed in 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 State Board. The State Board 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.

(1)

Each compliance period, all community and nontransient-noncommunity systems using groundwater shall monitor once during the year designated by the State Board. The State Board 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 sections 64432, 64432.1, 64432.2, and 64432.3, detection shall be defined by the detection limits for purposes of reporting (DLRs) in Table 64432-A. Table 64432-A Detection Limits for Purposes of Reporting (DLRs) for Regulated Inorganic Chemicals ChemicalDetection Limit for Purposes of Reporting (DLR) (mg/L) Aluminum0.05 Antimony0.006 Arsenic0.002 Asbestos0.2 MFL>10µm* Barium0.1 Beryllium0.001 Cadmium0.001 Chromium (hexavalent)0.0001 Chromium (total)0.01 Cyanide0.1 Fluoride0.1 Mercury0.001 Nickel0.01 Nitrate (as nitrogen)0.4 Nitrite (as nitrogen)0.4 Perchlorate0.002 0.001 (Effective January 1, 2024) Selenium0.005 Thallium0.001 * MFL=million fibers per liter; DLR for fibers exceeding 10 µm 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 State Board.

(f)

A water system may request approval from the State Board 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.

(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 State Board within 48 hours and monitor quarterly beginning in the next quarter after the exceedance occurred; or (2) Inform the State Board 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 State Board within 48 hours and the water supplier shall monitor quarterly beginning in the next quarter after the exceedance occurred.

(1)

Inform the State Board within 48 hours and monitor quarterly beginning in the next quarter after the exceedance occurred; or

(2)

Inform the State Board 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 State Board 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 State Board and resample as confirmation. The water supplier shall notify the State Board 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 State Board; (A) Immediately discontinue use of the contaminated water source; and (B) Not return the source to service without written approval from the State Board.

(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 State Board; (A) Immediately discontinue use of the contaminated water source; and (B) Not return the source to service without written approval from the State Board.

(A)

Immediately discontinue use of the contaminated water source; and

(B)

Not return the source to service without written approval from the State Board.

(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 State Board 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 State Board for a waiver from the monitoring frequencies specified in subsection (c)(1), 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 subsection (c)(1) 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.

(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 water system shall comply with the chromium (hexavalent) MCL by the applicable compliance date in Table 64432-B.Table 64432-B Chromium (Hexavalent) MCL Compliance Date System Size (Service Connections Served on October 1, 2024)Chromium (Hexavalent) MCL Compliance Date 10,000 or greaterOctober 1, 2026 1,000 to 9,999October 1, 2027 Fewer than 1,000October

1, 2028

(q)

If before the applicable compliance date in Table 64432-B, a water system's monitoring for chromium (hexavalent) conducted pursuant to subsection (b) demonstrates an MCL exceedance as calculated in accordance with subsection (i), then no later than 90 days after the MCL exceedance a water system shall submit to the State Board a Hexavalent Chromium MCL Compliance Plan that is sufficient to demonstrate how the system will comply with the chromium (hexavalent) MCL. (1) The Hexavalent Chromium MCL Compliance Plan shall state how the water system will comply with the chromium (hexavalent) MCL and include, at a minimum, the following: (A) The proposed method for complying with the chromium (hexavalent) MCL; if a new or modified treatment process is proposed, the Hexavalent Chromium MCL Compliance Plan shall include a pilot study adequate to demonstrate that the new or modified treatment process will result in compliance with the chromium (hexavalent) MCL; (B) If the proposed compliance method requires construction, the date by which the water system will submit to the State Board final plans and specifications for the proposed method of compliance; (C) If the proposed compliance method requires construction, the anticipated dates for commencing construction and completing 100 percent of construction; (D) If a new or modified treatment process is proposed, the anticipated date by which a Hexavalent Chromium Operations Plan as specified in subsection (r) will be submitted. (2) A public water system may make amendments to its Hexavalent Chromium MCL Compliance Plan. Any amendment made shall be submitted to the State Board for review and approval that it meets the requirements of paragraph (1). (3) A water system shall implement its State Board approved Hexavalent Chromium MCL Compliance Plan by the dates set forth

therein.

(1)

The Hexavalent Chromium MCL Compliance Plan shall state how the water system will comply with the chromium (hexavalent) MCL and include, at a minimum, the following: (A) The proposed method for complying with the chromium (hexavalent) MCL; if a new or modified treatment process is proposed, the Hexavalent Chromium MCL Compliance Plan shall include a pilot study adequate to demonstrate that the new or modified treatment process will result in compliance with the chromium (hexavalent) MCL; (B) If the proposed compliance method requires construction, the date by which the water system will submit to the State Board final plans and specifications for the proposed method of compliance; (C) If the proposed compliance method requires construction, the anticipated dates for commencing construction and completing 100 percent of construction; (D) If a new or modified treatment process is proposed, the anticipated date by which a Hexavalent Chromium Operations Plan as specified in subsection (r) will be submitted.

(A)

The proposed method for complying with the chromium (hexavalent) MCL; if a new or modified treatment process is proposed, the Hexavalent Chromium MCL Compliance Plan shall include a pilot study adequate to demonstrate that the new or modified treatment process will result in compliance with the chromium (hexavalent) MCL;

(B)

If the proposed compliance method requires construction, the date by which the water system will submit to the State Board final plans and specifications for the proposed method of compliance;

(C)

If the proposed compliance method requires construction, the anticipated dates for

commencing construction and completing 100 percent of construction;

(D)

If a new or modified treatment process is proposed, the anticipated date by which a Hexavalent Chromium Operations Plan as specified in subsection (r) will be submitted.

(2)

A public water system may make amendments to its Hexavalent Chromium MCL Compliance Plan. Any amendment made shall be submitted to the State Board for review and approval that it meets the requirements of paragraph (1).

(3)

A water system shall implement its State Board approved Hexavalent Chromium MCL Compliance Plan by the dates set forth therein.

(r)

A water system utilizing a new or modified treatment process to comply with the chromium (hexavalent) MCL shall, prior to serving water treated by the new or modified treatment process to the public, submit to the State Board for review and approval a Hexavalent Chromium Operations Plan sufficient to ensure that water treated by the new or modified treatment process reliably and continuously meets the chromium (hexavalent) MCL. The Hexavalent Chromium Operations Plan shall include, at a minimum, the following:(1) Performance monitoring program that sets out how and when treatment will be monitored to ensure compliance with the chromium (hexavalent) MCL; (2) A program for maintenance of treatment process equipment that describes how and when equipment will be maintained and when equipment replacement is needed to ensure treatment is operating as designed; (3) A description of each treatment unit process and how it is operated; (4) A description of procedures used to determine chemical dose rates sufficient to ensure the treatment process is operating as designed; (5) A

description of reliability features incorporated into the treatment process to ensure operation as designed; and (6) Treatment media inspection program sufficient to ensure the media is inspected at intervals and for conditions necessary to ensure compliance with the chromium (hexavalent) MCL.

(1)

Performance monitoring program that sets out how and when treatment will be monitored to ensure compliance with the chromium (hexavalent) MCL;

(2)

A program for maintenance of treatment process equipment that describes how and when equipment will be maintained and when equipment replacement is needed to ensure treatment is operating as designed;

(3)

A description of each treatment unit process and how it is operated;

(4)

A description of procedures used to determine chemical dose rates sufficient to ensure the treatment process is operating as designed;

(5)

A description of reliability features incorporated into the treatment process to ensure operation as designed; and

(6)

Treatment media inspection program sufficient to ensure the media is inspected at intervals and for conditions necessary to ensure compliance with the chromium (hexavalent) MCL.