CHAPTER 15. DOMESTIC WATER QUALITY AND MONITORING REGULATIONS

Article 1. Definitions

§64400.02. Approved Surface Water.

"Approved surface water" has the same meaning as defined in Section 64651.10.

§64400.03. Clean Compliance History.

"Clean compliance history" means a record of no bacteriological monitoring violations under sections 64423, 64424, and 64425, no MCL violations under section 64426.1, no coliform treatment technique violations under section 64426.6, and no coliform treatment technique trigger exceedances under section 64426.7.

§64400.10. Community Water System.

"Community water system" means a public water system which serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents.

§64400.29. Consecutive System.

"Consecutive system" means a public water system that receives some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

§64400.30. Customer.

"Customer" means a service connection to which water is delivered by a community water system or a person that receives water from a nontransient-noncommunity water system for more than six months of the year.

§64400.32. Detected.

"Detected" means at or above the detection limit for purposes of reporting (DLR).

§64400.34. Detection Limit for Purposes of Reporting (DLR).

"Detection limit for purposes of reporting (DLR)" means the designated minimum level at or above which any analytical finding of a contaminant in drinking water resulting from monitoring required under this chapter shall be reported to the State Board.

§64400.41. Finished Water.

"Finished water" means the water that is introduced into the distribution system of a public water system and is intended for distribution and consumption without further treatment, except as treatment necessary to maintain water quality in the distribution system (e.g., booster disinfection, addition of corrosion control chemicals).

§64400.47. Groundwater Under the Direct Influence of Surface Water or GWUDI. "Groundwater under the direct influence of surface water" or "GWUDI" has the same meaning as defined in Section 64651.50.

§64400.63. Level 1 Assessment.

"Level 1 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment.

§64400.64. Level 2 Assessment.

Level 2 assessment" means an evaluation, that provides a more detailed examination of the system (including the system's monitoring and operational practices) than does a Level 1 assessment through the use of more comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices, to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment.

§64400.70. MCL.

"MCL" means maximum contaminant level.

§64400.80. Nontransient-noncommunity Water System.

"Nontransient-noncommunity water system" means a public water system that is not a community water system and that regularly serves at least the same 25 persons over 6 months per year.

§64400.93 Possible Contaminating Activity (PCA).

"Possible contaminating activity (PCA)" means a human activity that is an actual or potential origin of contamination for a drinking water source and includes sources of both microbiological and chemical contaminants that could have adverse effects upon human health.

§64400.95. Protected Water Source.

"Protected water source" means an aquifer that provides physical exclusion of microbial contamination.

§64401.10. Repeat Sample.

"Repeat sample" means a required sample collected following a total coliform-positive sample.

§64401.20. Replacement Sample.

"Replacement sample" means a sample collected to replace an invalidated sample.

§64401.30. Routine Sample.

"Routine sample" means a bacteriological sample the water supplier is required to collect on a regular basis, or one which the supplier is required to collect for a system not in compliance with Sections 64650 through 64666 when treated water turbidity exceeds 1 nephelometric turbidity unit (NTU), pursuant to §64423(b).

§64401.35. Sanitary Defect.

"Sanitary defect" means a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.

§64401.40. Sanitary Survey.

"Sanitary survey" means an on-site review of a public water system for the purpose of evaluating the adequacy of the water source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.

§64401.45. Seasonal System.

"Seasonal system" means a nontransient-noncommunity water system or transient-noncommunity water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

§64401.50. Significant Rise in Bacterial Count.

"Significant rise in bacterial count" means an increase in coliform bacteria, as determined in §64426, when associated with a suspected waterborne illness or disruption of physical works or operating procedures.

§64401.60. Standby Source.

"Standby source" means a source which is used only for emergency purposes pursuant to §64414.

§64401.71. Tier 1 Public Notice.

"Tier 1 public notice" means a public notice issued in response to the events listed in subsection 64463.1(a) and in the manner specified in subsections 64463.1(b) and (c).

§64401.72. Tier 2 Public Notice.

"Tier 2 public notice" means a public notice issued in response to the events listed in section 64463.4(a) and in the manner specified in subsections 64463.4(b) and (c).

§64401.73. Tier 3 Public Notice.

"Tier 3 public notice" means a public notice issued in response to the events listed in section 64463.7(a) and in the manner specified in subsections 64463.7(b), and (c) or (d).

§64401.75. Too Numerous to Count.

"Too numerous to count" means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

§64401.80. Total Coliform-positive.

"Total coliform-positive" means a sample result in which the presence of total coliforms has been demonstrated.

§64401.85. Transient-noncommunity Water System.

"Transient-noncommunity water system" means a public water system that is not a community water system or a nontransient-noncommunity water system.

§64401.90. Treatment.

"Treatment" means physical, biological, or chemical processes, including blending, designed to affect water quality parameters to render the water acceptable for domestic use.

§64402.10. Water Source.

"Water source" means an individual groundwater source or an individual surface water intake. Sources which have not been designated as standby sources shall be deemed to be water sources.

§64402.20. Water Supplier.

"Water supplier", "person operating a public water system" or "supplier of water" means any person who owns or operates a public water system. These terms will be used interchangeably in this chapter.

- (a) "Wholesale water supplier," or "wholesaler" means any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.
 - (b) "Retail water supplier," or "retailer" means
- (1) Any person who owns or operates any distribution facilities and any related collection, treatment, or storage facilities under the control of the operator of the public water system which are used primarily in connection with the public water system: or
- (2) Any person who owns or operates any collection or pretreatment storage facilities not under the control of the operator of the public water system which are used primarily in connection with the public water system.

§64402.30. Wholesale System.

"Wholesale system" means a public water system that treats source water as necessary to produce finished water and then delivers some or all of that finished water to another

public water system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

Article 3. Primary Standards--Bacteriological Quality §64421. General Requirements.

- (a) The requirements of this Article apply to public water systems.
- (b) In addition to the bacteriological monitoring requirements in Sections 64423, 64424, 64425, and 64426.9, a public water system shall perform special purpose bacteriological monitoring as follows:
- (1) After any system pressure loss to less than five psi. Samples collected shall represent the water quality in the affected portions of the system; and
- (2) For a groundwater (not GWUDI) source that is treated with a primary or residual disinfectant on a continuous basis and is not monitored pursuant to Section 64654.8(b)(1)(B):
- (A) A raw water sample shall be collected each calendar quarter, with samples collected during the same month (first, second, or third) of each calendar quarter; and
- (B) If the raw water sample is total coliform-positive, a raw water sample shall be collected each month. If no coliforms are detected for a minimum of three consecutive months, a public water system may submit a request to the State Board to monitor in accordance with subparagraph (A).
- (c) A public water system shall maintain documentation that the personnel performing sample collection and/or field tests under this Article have been trained pursuant to Section 64415(b). As a minimum, the documentation shall include the name and qualifications of the personnel who will be performing the sample collection and/or field tests.
- (d) Plans, procedures, and requests to be submitted by a public water system to the State Board under this Article shall be in writing. For a request, the system shall state what is being requested, the basis for the request, and include any documentation to support the request.

§64422. Bacteriological Sample Siting Plan.

- (a) By October 1, 2021, an existing public water system shall develop and submit to the State Board a bacteriological sample siting plan that identifies sampling sites and a sample collection schedule for the collection of bacteriological samples for total coliform analysis, subject to the following:
- (1) The sample sites chosen shall be representative of water throughout the distribution system including each pressure zone, and areas supplied by each water source and distribution reservoir;
- (2) Routine sampling may be rotated among the routine sample sites if the total number of sites needed to comply with paragraph (1) above exceeds the number of

samples required according to Table 64423-A. The rotation of sampling sites shall be described in the plan;

- (3) Routine and repeat sampling may take place at a customer's premises, dedicated sampling station, or other designated compliance sample location;
- (4) The physical location of routine and repeat sample sites and sampling points required by the Ground Water Rule (triggered source monitoring and assessment source monitoring) in Section 64430 shall be specified in the plan; and
- (5) If applicable, the alternative sampling locations, dual purpose sampling locations, and special purpose sampling locations required in Table 64424-A, Table 64424-B, and Section 64421(b)(2), respectively, shall be specified in the plan.
- (b) A public water system shall collect bacteriological samples for total coliform analysis in accordance with the State Board-approved bacteriological sample siting plan.
- (c) A public water system shall submit an updated plan to the State Board at least once every ten years and within 30 days of the system's or State Board's determination that the plan no longer complies with subsection (a), the alternative monitoring location for repeat samples collected under Table 64424-A is no longer representative of a pathway for contamination of the distribution system, or dual purpose sampling specified in Table 64424-B is no longer representative of water quality in the distribution system.

§64423. Routine Sampling.

- (a) A public water system shall collect routine bacteriological water samples as follows:
- (1) The minimum number of samples for community water systems shall be based on the known population served or the total number of service connections, whichever results in the greater number of samples, as shown in Table 64423-A;
- (2) The minimum number of samples for nontransient-noncommunity water systems shall be based on the known population served as shown in Table 64423-A during those months when the system is operating;
- (3) The minimum number of samples for transient-noncommunity water systems using only groundwater (not GWUDI) and serving 1000 or fewer persons a month shall be one in each calendar quarter during which the system provides water to the public;
- (4) The minimum number of samples for transient-noncommunity water systems using groundwater (not GWUDI) and serving more than 1000 persons during any month shall be based on the known population served as shown in Table 64423-A. For any quarter the system serves 1000 or fewer persons in each month and uses only groundwater (not GWUDI), and if the criteria in subsections (c)(2)(A) and (B) are met, the system may submit a request to the State Board to monitor in accordance with paragraph (3). The request shall include:

- (A) Historical data that demonstrates the system has served 1000 or fewer persons in each month of the calendar quarter for which the request is being made; and (B) A revised bacteriological sample siting plan with an updated sampling
- schedule;
- (5) The minimum number of samples for transient-noncommunity water systems using approved surface water shall be based on the population served as shown in Table 64423-A. A system using groundwater under the direct influence of surface water shall begin monitoring at this frequency by the end of the sixth month after the State Board has designated the source to be approved surface water;
- (6) The minimum number of samples for seasonal systems, and in lieu of paragraphs (2) through (5), shall be based on the population served as shown in Table 64423-A during those months when the system is operating;
- (7) Samples shall be collected at regular time intervals throughout the month, except that a system using only groundwater (not GWUDI) which serves 4,900 persons or fewer may collect all required samples on a single day if they are taken from different sites;
- (8) At least the minimum number of samples shall be taken even if the system has had an *E. coli* MCL violation or has exceeded the coliform treatment technique triggers in Section 64426.7; and
- (9) More than the minimum number of samples may be taken provided the samples are included in the bacteriological sample siting plan developed pursuant to Section 64422.
- (b) In addition to the minimum sampling requirements, all public water systems using approved surface water which do not practice filtration in compliance with Sections 64650 through 64666, shall collect a minimum of one sample before or at the first service connection each day during which the turbidity level of the source water exceeds 1 NTU. The sample shall be collected within 24 hours of the first exceedance and shall be analyzed for total coliforms. If the water system is unable to collect and/or analyze the sample within the 24-hour time period because of extenuating circumstances beyond its control, the system shall notify the State Board within the 24-hour time period, submit a request to the State Board for an extension, and comply with an alternative sample collection schedule specified by the State Board. Sample results shall be included in determining if the coliform treatment technique trigger in Section 64426.7 has been exceeded.
- (c) A transient-noncommunity water system monitoring pursuant to subsection (a)(3):
- (1) Shall, in the month following the occurrence of any of the following events, increase monitoring to one sample each month:
- (A) The system triggers a Level 2 assessment or two Level 1 assessments in a rolling12-month period;
 - (B) The system has an *E. coli* MCL violation;

- (C) The system has a coliform treatment technique violation; or
- (D) The system has two bacteriological monitoring violations or one bacteriological monitoring violation and one Level 1 assessment in a rolling 12-month period. For purposes of this subparagraph, failure to conduct bacteriological monitoring under Section 64423, 64423.1, 64424, or 64425 is a bacteriological monitoring violation;
- (2) If monitoring pursuant to paragraph (1) and if all the following criteria are met, may submit a request to the State Board to return to routine monitoring pursuant to subsection (a)(3):
- (A) Within the last 12 consecutive months, the system shall have a completed sanitary survey, site visit, or voluntary Level 2 assessment by the State Board and be determined by the State Board to be free of sanitary defects and have a protected water source; and
- (B) Immediately prior to the request, the system shall have a clean compliance history for a minimum of 12 consecutive months; and
- (3) Shall, in the month following one or more total coliform-positive samples (with or without a Level 1 treatment technique trigger exceedance), collect at least three routine samples. The system may either collect samples at regular time intervals throughout the month or may collect all required routine samples on a single day if samples are taken from different sites. If the system stops supplying water during the month following the total coliform-positive(s), at least three routine samples shall be collected during the first month the system resumes operation.
- (d) A public water system in violation of the routine sample monitoring requirements of this section shall notify the State Board within 10 days after it learns of the violation and notify the public pursuant to Sections 64463, 64463.7, and 64465.
- (e) A public water system in violation of the reporting requirement in subsection (d) to notify the State Board shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

Table 64423-A Minimum Number of Routine Total Coliform Samples

Monthly Population Served ¹	Service Connections	Minimum Number of Samples Per Month
25 to 1000	15 to 400	1
1,001 to 2,500	401 to 890	2
2,501 to 3,300	891 to 1,180	3
3,301 to 4,100	1,181 to 1,460	4
4,101 to 4,900	1,461 to 1,750	5
4,901 to 5,800	1,751 to 2,100	6
5,801 to 6,700	2,101 to 2,400	7
6,701 to 7,600	2,401 to 2,700	8
7,601 to 8,500	2,701 to 3,000	9
8,501 to 12,900	3,001 to 4,600	10
12,901 to 17,200	4,601 to 6,100	15
17,201 to 21,500	6,101 to 7,700	20
21,501 to 25,000	7,701 to 8,900	25
25,001 to 33,000	8,901 to 11,800	30
33,001 to 41,000	11,801 to 14,600	40
41,001 to 50,000	14,601 to 17,900	50
50,001 to 59,000	17,901 to 21,100	60
59,001 to 70,000	21,101 to 25,000	70
70,001 to 83,000	25,001 to 29,600	80
83,001 to 96,000	29,601 to 34,300	90
96,001 to 130,000	34,301 to 46,400	100
130,001 to 220,000	46,401 to 78,600	120
220,001 to 320,000	78,601 to 114,300	150
320,001 to 450,000	114,301 to 160,700	180
450,001 to 600,000	160,701 to 214,300	210
600,001 to 780,000	214,301 to 278,600	240
780,001 to 970,000	278,601 to 346,400	270
970,001 to 1,230,000	346,401 to 439,300	300
1,230,001 to 1,520,000	439,301 to 542,900	330
1,520,001 to 1,850,000	542,901 to 660,700	360
1,850,001 to 2,270,000	660,701 to 810,700	390
2,270,001 to 3,020,000	810,701 to 1,078,600	420
3,020,001 to 3,960,000	1,078,601 to 1,414,300	450
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¹ For a transient-noncommunity water system, monthly population served shall be based on the average number of persons served per day in a month.

§64423.1. Sample Analysis and Reporting of Results.

- (a) A public water system shall designate (label) each sample as routine, repeat, replacement, or "other" pursuant to Section 64421(b), and have each sample analyzed for total coliforms. The system also shall require the laboratory to analyze the same sample for Escherichia coli (*E. coli*) whenever the presence of total coliforms is indicated. As a minimum, the analytical results shall be reported in terms of the presence or absence of total coliforms and *E. coli* in the sample, whichever is appropriate. If directed by the State Board, based on an identified sanitary defect, exceedance of a Level 1 or Level 2 coliform treatment technique trigger, history of total coliform-positive samples within the past 12 consecutive months, or determination of a possible significant rise in bacterial count in accordance with Section 64426, the analytical results shall be reported in terms of coliform density of total coliforms and *E. coli*, in the sample, whichever is appropriate.
- (b) A public water system shall require the laboratory to notify the system within 24 hours, whenever the presence of total coliforms or *E. coli* is demonstrated in a sample or a sample is invalidated due to interference problems, pursuant to Section 64425(b), ensure that a contact person is available to receive these analytical results 24-hours a day, and provide the name(s) and contact information of the contact person(s) to the laboratory. The system shall also require the laboratory to immediately notify the State Board of any positive bacteriological results if the laboratory cannot make direct contact with the designated contact person within 24 hours.
- (c) Analytical results of all required samples collected for a public water system in a calendar month shall be reported to the State Board not later than the tenth day of the following month, as follows:
- (1) Systems serving more than 400 service connections or 1000 persons, or a wholesaler as defined in section 64402.20(a), shall submit a monthly summary of the bacteriological monitoring results to the State Board, which shall contain the following:
 - (A) Total number of samples collected:
- (B) Number, sample collection date, and sample location of all total coliform and *E. coli*-positive samples;
- (C) Number, sample collection date, sample location, and result of triggered groundwater source samples collected; and
- (D) Sample collection date, sample location, and result for all repeat samples collected.
- (2) Systems serving fewer than 10,000 service connections shall require the laboratory to submit copies of all required bacteriological monitoring results directly to the State Board; and
- (3) Systems serving 10,000 or more service connections shall require the laboratory to submit copies of bacteriological monitoring results for all positive routine samples and all repeat samples directly to the State Board.

- (d) A public water system in violation of the monitoring requirement of subsection (a) to test the same sample for *E. coli* following a total coliform-positive routine sample shall notify the State Board within 10 days after it learns of the violation and shall notify the public pursuant to Sections 64463, 64463.7, and 64465.
- (e) A public water system in violation of the reporting requirement of subsection (c) to report monitoring results to the State Board or subsection (d) to notify the State Board shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

§64424. Repeat Sampling.

- (a) If a routine sample is total coliform-positive, a public water system shall collect a repeat sample set as described in paragraph (1) within 24 hours of being notified of the positive result. The repeat samples shall all be collected within the same 24-hour time period. A single service connection system may submit a request to the State Board to allow the collection of the repeat sample set over a three-day period.
- (1) A repeat sample set shall be at least three samples for each total coliform-positive sample.
- (2) If the system is unable to collect the samples within the 24-hour time period specified in subsection (a) or deliver the samples to the laboratory within 24 hours after collection because of circumstances beyond its control, the system shall notify the State Board within 24 hours. The State Board will then determine how much time the system will have to collect the repeat samples.
- (b) Unless the condition for using alternative sampling locations or dual purpose sampling locations in Table 64424-A or B, respectively, is met, when collecting the repeat sample set, a public water system shall collect at least one repeat sample from the sampling tap where the original total coliform-positive sample was taken. Other repeat samples shall be collected within five service connections upstream or downstream of the original site. At least one sample shall be from upstream and one from downstream unless there is no upstream and/or downstream service connection. If a total coliform-positive sample is at the end of the distribution system, or one service connection away from the end of the distribution system, the system shall still take all required repeat samples. The system may submit a request to the State Board to use an alternative sampling location in lieu of the requirement to collect at least one repeat sample upstream or downstream of the original sampling site. Except as provided in Table 64424-B, a system required to conduct triggered source water monitoring under 40 CFR 141.402(a), which is incorporated by reference under Section 64430, shall take groundwater (not GWUDI) source sample(s) in addition to repeat samples required under this section. If monitoring pursuant to Table 64424-B and in violation of the E. coli MCL, the system shall comply with the additional Ground Water Rule requirements in Table 64424-C.

Table 64424-A Alternative Sampling Locations

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Type of Water System	Sampling Requirement
Public water system	The system may propose repeat monitoring locations to the State Board that the system believes to be representative of a pathway for contamination of the distribution system. The system may elect to specify either alternative fixed locations or criteria for selecting repeat sampling sites on a situational basis in a standard operating procedure (SOP) in its bacteriological sample siting plan. The system shall design its SOP to focus the repeat samples at locations that best verify and determine the extent of potential contamination of the distribution system area based on specific situations.

Table 64424-B Dual Purpose Sampling Locations

Type of Water System	Sampling Requirement
Public water system	The system may propose repeat sampling locations
using only a single	to the State Board that differentiate potential source
groundwater (not	water and distribution system contamination (e.g.,
GWUDI) well, serving	by sampling at entry points to the distribution
1,000 or fewer persons,	system). The system may submit a request to the
and required to conduct	State Board to take one of its repeat samples at the
triggered source water	monitoring location required for triggered source
monitoring under 40	water monitoring (dual purpose sampling) under 40
CFR 141.402(a), which	CFR 141.402(a), which is incorporated by reference
is incorporated by	under Section 64430, if the system demonstrates to
reference under Section	the State Board that the bacteriological sample
64430	siting plan remains representative of water quality in
	the distribution system. If approved by the State
	Board, the system may use that sample result to
	meet the monitoring requirements in both 40 CFR
	141.402(a), which is incorporated by reference
	under Section 64430, and this section.
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Table 64424-C
Additional Ground Water Rule Requirements

Results of Dual Purpose Sampling that Constitutes an E.coli MCL Violation	Public Water System Action Required
A repeat sample taken at the monitoring location required for triggered source water monitoring is <i>E. coli</i> -positive	The system shall comply with 40 CFR 141.402(a)(3), which is incorporated by reference under Section 64430. If the system takes more than one repeat sample at the monitoring location required for triggered source water monitoring, the system may reduce the number of additional source water samples required under 40 CFR 141.402(a)(3), which is incorporated by reference under Section 64430, by the number of repeat samples taken at that location that were not <i>E. colipositive</i> .
A system takes more than one repeat sample at the monitoring location required for triggered source water monitoring and more than one repeat sample is <i>E. coli</i> -positive	The system shall comply with 40 CFR 141.403(a)(1), which is incorporated by reference under Section 64430.
All repeat samples taken at the monitoring location required for triggered source water monitoring are <i>E. colinegative</i> and a repeat sample taken at a monitoring location other than the one required for triggered source water monitoring is <i>E.coli</i> -positive	The system is not required to comply with 40 CFR 141.402(a)(3), which is incorporated by reference under Section 64430.

(c) If one or more samples in the repeat sample set is total coliform-positive, a public water system shall collect and have analyzed an additional set of repeat samples as specified in subsections (a) and (b). The system shall repeat this process until either no total coliforms are detected in one complete repeat sample set or the system determines that a coliform treatment technique trigger specified in Section 64426.7 has been exceeded as a result of a repeat sample being total coliform-positive and notifies

the State Board by the end of the day on which this is determined. If a treatment technique trigger identified in Section 64426.7 is exceeded as a result of a routine sample being total coliform-positive, the system is required to conduct only one round of repeat monitoring for each total coliform-positive routine sample.

- (d) A public water system in violation of the repeat sample monitoring requirements of this section shall notify the State Board within 10 days after it learns of the violation and notify the public pursuant to Sections 64463, 64463.7, and 64465.
- (e) A public water system in violation of the reporting requirement in subsection (d) to notify the State Board shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

§64425. Sample Invalidation.

- (a) A public water system may request the State Board to invalidate a routine or repeat sample for which a total coliform-positive result has been reported if the system demonstrates:
- (1) All repeat sample(s) collected at the same tap as the original total coliformpositive sample also are total coliform- positive and all repeat samples collected within five service connections of the original tap are not total coliform-positive; or
- (2) The laboratory did not follow the prescribed analytical methods pursuant to Section 64415(a), based on a review of laboratory documentation by the State Board. The system shall submit to the State Board a written request for invalidation along with the laboratory documentation, the system's sample collection records and any observations noted during sample collection and delivery. The system shall require the laboratory to provide the system with documentation which shall include, but not be limited to:
- (A) A letter from the director of the laboratory having generated the data, confirming the invalidation request by reason of laboratory accident or error;
- (B) Complete sample identification, laboratory sample log number (if used), date and time of collection, date and time of receipt by the laboratory, date and time of analysis for the sample(s) in question;
- (C) Complete description of the accident or error alleged to have invalidated the result(s);
- (D) Copies of all analytical, operating, and quality assurance records pertaining to the incident in question; and
- (E) Any observations noted by laboratory personnel when receiving and analyzing the sample(s) in question.
- (b) Whenever any total coliform routine or repeat sample result indicative of the absence of total coliforms has been declared invalid by the laboratory due to interference problems as specified at 40 Code Federal Regulations, Section 141.853(c)(2) (78 Fed. Reg. 10270 (February 13, 2013)), which is incorporated by

reference, the public water system shall collect a replacement sample from the same location as the original sample within 24 hours of being notified of the interference problem, and have it analyzed for the presence of total coliforms. The system shall continue to re-sample at the original site within 24 hours and have the samples analyzed until a valid result is obtained. If the system is unable to collect the sample within the 24-hour time period or deliver the sample to the laboratory within 24 hours after collection because of circumstances beyond its control, the system shall notify the State Board within 24 hours. The State Board will then determine how much time the system will have to collect the replacement sample.

- (c) A total coliform-positive sample invalidated under this section does not count towards meeting the minimum routine and repeat sample monitoring requirements of Sections 64423 and 64424, respectively.
- (d) A public water system in violation of the replacement sample monitoring requirements of subsection (b) shall notify the State Board within 10 days after it learns of the violation and notify the public pursuant to Sections 64463, 64463.7, and 64465.
- (e) A public water system in violation of the reporting requirement in subsection (d) to notify the State Board shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

§64426. Significant Rise in Bacterial Count.

- (a) A public water system shall determine whether a possible significant rise in bacterial count has occurred for each month in which it is required to monitor for total coliforms. Results of all samples collected in a calendar month pursuant to Sections 64423, 64424, and 64425 that are not invalidated by the State Board or the laboratory shall be included in determining a possible significant rise in bacterial count. Special purpose samples such as those listed in Section 64421(b) and special purpose samples collected by a public water system during special investigations shall also be included to determine a possible significant rise in bacterial count.
- (b) Any of the following criteria shall indicate a possible significant rise in bacterial count:
- (1) A public water system collecting at least 40 samples per month has a total coliform-positive routine sample followed by two total coliform-positive repeat samples in the repeat sample set;
 - (2) A public water system has a sample which is positive for *E. coli*; or
- (3) A system fails the *E. coli* Maximum Contaminant Level (MCL) as defined in Section 64426.1.
- (c) When the coliform criteria specified in subsection (b) are reached or exceeded, the public water system shall:

- (1) Contact the State Board by the end of the day on which the system is notified of the test result(s); and
- (2) Within 24 hours on which the system is notified of the test result(s), conduct and investigation and submit to the State Board information on the current status of physical works and operating procedures which may have caused the elevated bacteriological findings, or any information on community illness suspected of being waterborne. This shall include, but not be limited to:
- (A) Current operating procedures that are or could potentially be related to the increase in bacterial count;
 - (B) Any interruptions in the treatment process;
 - (C) System pressure loss to less than 5 psi;
 - (D) Vandalism and/or unauthorized access to facilities;
 - (E) Evidence indicating bacteriological contamination of facilities;
- (F) Analytical results of any additional samples collected, including source samples;
 - (G) Community illness suspected of being waterborne; and
 - (H) Records of the investigation and any action taken.
- (d) As soon as possible within 24 hours of receiving notification from the State Board determining there is a significant rise in bacterial count, based on the information submitted under subsection (c)(2), the public water system shall implement the emergency notification plan required by Section 116460, Health and Safety Code.
- (e) Within 30 days on which the system is notified of the test result(s) indicating a possible significant rise in bacterial count, submit to the State Board a report on the investigation, sanitary defects detected (and if applicable, may note no sanitary defects were detected), corrective actions completed, and a proposed timetable for any corrective actions not already completed. The system shall notify the State Board within five business days when each scheduled corrective action is completed.
- (f) A public water system in violation of the reporting requirement in subsection (c)(1) to notify the State Board when a routine or repeat sample is *E. coli*-positive shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

§64426.1. E.coli Maximum Contaminant Level (MCL).

(a) A public water system shall determine compliance with the *E. coli* MCL for each month in which it is required to monitor for total coliforms. Results of all samples collected in a calendar month pursuant to Sections 64423, 64424, and 64425 that are not invalidated by the State Board or the laboratory shall be included in determining compliance with the *E. coli* MCL. Special purpose samples such as those listed in section 64421(b) and special purpose samples collected by a public water system during special investigations shall not be used to determine compliance with the *E. coli* MCL.

- (b) A public water system is in violation of the *E. coli* MCL when any of the following occurs:
- (1) The system has an *E. coli*-positive repeat sample following a total coliform-positive routine sample;
- (2) The system has a total coliform-positive repeat sample following an *E. coli*-positive routine sample;
- (3) The system fails to take all required repeat samples following an *E. coli*positive routine sample; or
- (4) The system fails to test for *E. coli* when any repeat sample tests positive for total coliform.
- (c) If a public water system is not in compliance with subsections (b)(1) through (4), during any month in which it supplies water to the public, the system shall notify the State Board by the end of the day on which this is determined. The system shall also notify the public pursuant to Sections 64463, 64463.1, and 64465.
- (d) A public water system in violation of the reporting requirement in subsection (c) to notify the State Board shall notify the public pursuant to Sections 64463, 64463.7, and 64465.
- (e) A public water system shall not be eligible for a variance or exemption from the *E. coli* MCL.

§64426.5. Variance from Total Coliform Maximum Contaminant Level. [deleted]

§64426.6. Coliform Treatment Technique.

- (a) A public water system is in violation of the coliform treatment technique when either of the following occurs:
- (1) The system exceeds a treatment technique trigger specified in Section 64426.7 and then fails to conduct the required assessment or corrective actions within the timeframe specified in Section 64426.8; or
- (2) A seasonal system fails to complete a State Board-approved start-up procedure prior to serving water to the public.
- (b) A public water system in violation of the coliform treatment technique shall notify the State Board by the end of the next business day on which this is determined. The system shall also notify the public pursuant to Sections 64463, 64463.4, and 64465.
- (c) A public water system in violation of the reporting requirement in subsection (b) to notify the State Board shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

§64426.7. Coliform Treatment Technique Triggers.

- (a) A public water system shall determine whether a coliform treatment technique trigger has been exceeded for each month in which it is required to monitor for total coliforms. Results of all samples collected in a calendar month pursuant to Sections 64423,64424, and 64425 that are not invalidated by the State Board or the laboratory shall be included in determining if a coliform treatment technique trigger has been exceeded. Special purpose samples such as those listed in Section 64421(b) and special purpose samples collected by a public water system during special investigations shall not be used to determine if a coliform treatment technique trigger has been exceeded.
- (b) A public water system exceeds a Level 1 treatment technique trigger if any of the following occurs:
- (1) For a system taking 40 or more samples per month, the system exceeds 5.0% total coliform-positive samples for the month;
- (2) For a system taking fewer than 40 samples per month, the system has two or more total coliform-positive samples in the same month; or
- (3) The system fails to take every required repeat samples after any single total coliform-positive sample.
- (c) A public water system exceeds a Level 2 treatment technique trigger if either of the following occurs:
 - (1) The system has an E. coli MCL violation; or
- (2) The system has a second Level 1 treatment technique trigger, within a rolling 12-month period, unless the State Board has determined a likely reason that the samples that caused the first Level 1 treatment technique trigger were total coliform-positive and has established that the system has corrected the problem.

§64426.8. Level 1 and Level 2 Assessments and Corrective Actions.

- (a) If a public water system exceeds a Level 1 treatment technique trigger in Section 64426.7(b), the system shall:
- (1) Direct the system operator or owner to conduct and complete a Level 1 assessment as soon as practical after exceeding any trigger;
- (2) Ensure that the assessment is conducted to identify the possible presence of sanitary defects and defects in distribution system coliform monitoring practices. The assessment shall include a review and identification of the minimum elements in subparagraphs (A) through (E) and shall describe sanitary defects detected (and if applicable, may note no sanitary defects were detected), corrective actions completed, and a proposed timetable for any corrective actions not already completed:
 - (A) Inadequacies in sample sites, sampling protocol, and sample processing;
- (B) Atypical events that could affect distributed water quality or indicate that distributed water quality was impaired;

- (C) Changes in distribution system maintenance and operation that could affect distributed water quality (including water storage);
- (D) Source and treatment considerations that bear on distributed water quality, where appropriate (e.g., small groundwater systems or whether a groundwater system is disinfected); and
 - (E) Existing water quality monitoring data;
- (3) Conduct the assessment consistent with any State Board directives that tailor specific assessment elements with respect to the size and type of the water system and the size, type, and characteristics of the distribution system;
- (4) Within 30 days after the system learns that it has exceeded a trigger, submit to the State Board the completed assessment; and
- (5) If directed by the State Board, based on its determination that the completed assessment is not sufficient (including any proposed timetable for any corrective actions not already completed), submit a revised completed assessment to the State Board within 30 days.
- (b) If a public water system exceeds a Level 2 treatment technique trigger in Section 64426.7(c), the system shall:
- (1) Arrange with the State Board to conduct and complete a Level 2 assessment, that includes a review and identification of the minimum elements in subsections (a)(2)(A) through (E) to identify the possible presence of sanitary defects and defects in distribution system coliform monitoring practices, as soon as practical after exceeding any trigger;
- (2) Comply with any expedited actions or additional actions required by the State Board in the case of an *E. coli* MCL violation;
- (3) Within 30 days after the system learns that it has exceeded a trigger, submit to the State Board a completed assessment that includes the State Board assessment and describes sanitary defects detected (and if applicable, may note no sanitary defects were detected), corrective actions completed, and a proposed timetable for any corrective actions not already completed; and
- (4) If directed by the State Board, based on its determination that the completed assessment is not sufficient (including any proposed timetable for any corrective actions not already completed), submit a revised description of corrective actions completed and a proposed timetable for any corrective actions not already completed to the State Board within 30 days.
- (c) A public water system shall correct sanitary defects found through either a Level 1 or Level 2 assessment conducted under subsection (a) or (b), respectively. For corrections not completed by the time of submission of the completed assessment, the system shall complete the corrective action(s) in compliance with a State Board-approved timetable. The system shall notify the State Board within five business days when each scheduled corrective action is completed.

(d) A public water system in violation of the reporting requirement of subsection (a)(4) or (b)(3) to submit a completed assessment to the State Board or subsection (c) to notify the State Board shall notify the public pursuant to Sections 64463, 64464.7, and 64465.

§64426.9. Seasonal System Start-Up Procedure.

- (a) By October 1, 2021, an existing seasonal system shall develop and submit to the State Board a start-up procedure. The procedure shall include, but not be limited to, the following:
- (1) Inspection of water system components, including each source, treatment facility, distribution main, and distribution reservoir;
 - (2) Disinfection and flushing of water system components;
- (3) Bacteriological monitoring, at each source (prior to treatment), each distribution reservoir, and, whichever results in the greater number of samples, each pressure zone or a minimum of three samples from the distribution system. The location of the distribution system samples shall be specified in the procedure;
- (4) Disinfectant residual monitoring, at the same points and at the same time as total coliforms are sampled in paragraph (3);
- (5) Use of certified distribution operator(s) to supervise or perform activities in paragraphs (1) through (4); and
- (6) Notification of the State Board of system shutdown and prior to serving water to the public.
 - (b) Prior to serving water to the public, a seasonal system shall:
 - (1) Complete a State Board-approved start-up procedure;
- (2) Certify to the State Board it has complied with the State Board-approved start-up procedure;
- (3) Submit to the State Board results of bacteriological and disinfectant residual monitoring performed under subsections (a)(3) and (4), respectively; and
 - (4) Obtain written State Board approval to serve water to the public.
- (c) If the entire distribution system remains pressurized during the period a seasonal system is not operating, the seasonal system may submit a request to the State Board to be exempt from some or all of the requirements in subsections (a)(1) through (5).
- (d) A seasonal system that proposes to use an alternative to a start-up procedure requirement in subsections (a)(1) through (5) shall:
- (1) Demonstrate to the State Board that the proposed alternative would provide at least the same level of protection to public health; and
- (2) Obtain written approval from the State Board prior to implementation of the alternative.

(e) A public water system in violation of the reporting requirement in subsections (b) and (b)(2) to certify completion of a State Board-approved start-up procedure prior to serving water to the public shall notify the public pursuant to Sections 64463, 64463.7, and 64465.

§64427. Sanitary Survey.

Systems which collect less than five routine samples per month shall be subject to an initial sanitary survey by the Department by June 29, 1994 for community water systems and June 29, 1999 for nontransient-noncommunity and transient-noncommunity water systems. Sanitary surveys shall be repeated every five years.

Article 3.5. Ground Water Rule §64430. Requirements.

A public water system that uses ground water shall comply with the following provisions of 40 Code of Federal Regulations as they appear in the Ground Water Rule published in 71 Federal Register 65574 (November 8, 2006) and amended in 71 Federal Register 67427 (November 21, 2006), 74 Federal Register 30953 (June 29, 2009), and 78 Federal Register 10270 (February 13, 2013), which are hereby incorporated by reference: Sections 141.21(d)(3), 141.28(a), 141.153(h)(6), Appendix A to Subpart O (Consumer Confidence Reports), 141.202(a)(8), 141.203(a)(4), Appendices A and B to Subpart Q (Public Notification), and 141.400 through 141.405, except that in:

- (a) Sections141.402(a)(1)(iii), (a)(2), (a)(4)(i), (a)(4)(ii)(A), (a)(5)(i), and (a)(5)(ii), the phrase "§§ 141.854 through 141.857" is replaced by "22 California Code of Regulation Section 64423";
- (b) Section 141.402(a)(1)(iii), the phrase "§ 141.853(c)" is replaced by "22 California Code of Regulation Section 64425";
- (c) Section 141.402(a)(2)(ii), the phrase "§ 141.853" is replaced by "22 California Code of Regulation Section 64422";
- (d) Section 141.402(a)(2)(iv), the phrases "subpart Y" and "§ 141.858" are replaced by "22 California Code of Regulation Section 64424"; and
- (e) Section 141.405(b)(4), the phrase "§ 141.853" is replaced by "22 California Code of Regulation Section 64425".

[Note: The text reflecting the above section is provided in Addendum A of this book.]