TITLE 22. SOCIAL SECURITY
DIVISION 4. ENVIRONMENTAL HEALTH
CHAPTER 17. SURFACE WATER TREATMENT

ARTICLE 1. GENERAL REQUIREMENTS AND DEFINITIONS

(1) Amend Section 64650 as follows:

§ 64650. General Requirements.

(a) For a supplier using an approved surface water, as defined in section 64651.10, this chapter establishes treatment techniques in lieu of maximum contaminant levels for turbidity and the following microbial contaminants: *Giardia lamblia* (cysts), viruses, heterotrophic plate count bacteria, ~~and~~ *Legionella*, and *Cryptosporidium*. ~~In addition, for a supplier using an approved surface water and serving at least 10,000 people, Article 3.5, commencing with section 64657, establishes treatment techniques in lieu of maximum contaminant limits for *Cryptosporidium.*~~

(b) ~~Each~~ A supplier using an approved surface water shall provide multibarrier treatment necessary to reliably protect users from the adverse health effects of microbiological contaminants and to comply with the requirements and performance standards prescribed in this chapter.

(c) A supplier that meets the requirements of section 64652.5 and wishes to not be required to provide multibarrier treatment shall submit an application to the Department. That application shall consist of comprehensive documentation that either demonstrates current compliance with the requirements in section 64652.5 or demonstrates that the water system will be in compliance within fifteen months from application submittal. ~~Within 30 days, the Department will review the application and inform the applicant in writing that the application is complete and accepted for filing, or that the application is deficient and what specific information is required. Within 90 days from the date the~~

~~application is accepted for filing, the Department will complete its review of the documentation, determine whether to approve the application, and notify the water supplier.~~

(d) If at any time the Department determines that a ~~water~~ supplier is not in compliance with the requirements of this chapter, ~~the Department will notify the supplier of that determination within 30 days of its being made.~~

~~(c) Except as provided for existing treatment plants in section 64652(c), within 90 days from the date of notification by the Department pursuant to subsection (b),~~ the supplier shall submit for Department approval a plan and schedule to modify its system to meet the requirements of this chapter. The supplier shall submit the plan and schedule within 90 days of receipt of the Department's determination.

(~~d~~e) If the supplier disagrees with the Department's ~~notification specified in subsection (b)~~determination in subsection (d), ~~then~~ the supplier shall submit reasons for its disagreement within 30 days ~~from the~~of receipt of the ~~notification~~determination. ~~The Department shall notify the supplier of its final determination in writing within 30 days of receipt of the supplier's reasons for disagreement.~~ If the Department's final determination is that the supplier does not meet the requirements of this chapter, ~~then~~ the supplier shall comply with the provision~~s~~ of subsection (~~c~~d) within 90 days of receipt of the Department's final determination.

(f) A supplier shall comply with the following provisions of 40 Code of Federal Regulations as they appear in the:

(1) Long Term 2 Enhanced Surface Water Treatment Rule published in 71 Federal Register 654 (January 5, 2006), which are incorporated by reference: sections

141.211, Appendix A to Subpart Q (Public Notification), 141.700, 141.701, 141.702, 141.703, 141.704, 141.705, 141.706, 141.707, 141.708, 141.709, 141.710, 141.711, 141.712, 141.713, 141.714, 141.715 (except subsection (b)(4)), 141.716, 141.717 (except subsection (b)), 141.718, 141.719, 141.720, 141.721 (except subsection (f)(4)), 141.722, and 141.723, except that in:

(A) sections 141.211(a) and (b), the phrase "§ 141.203(b)" is replaced by "section 64463.4(b)(2)";

(B) section 141.211(c), the phrase "§ 141.203(c)" is replaced by "section 64463.4(c)";

(C) section 141.211(c), the phrase "§ 141.205(c)" is replaced by "sections 64465(c) and (d)";

(D) Appendix A to Subpart Q (Public Notification), Endnote 1, the phrase "§ 141.202(a) and § 141.203(a)" is replaced by "sections 64463.1 and 64463.4";

(E) sections 141.700(a) and (b)(3) and 141.711(a), the phrase "subparts H, P, and T of this part" is replaced by "Title 22, Division 4, Chapter 17, California Code of Regulations";

(F) sections 141.700(b), 141.701(e), 141.701(f)(2), and 141.719(a), the phrase "subpart H" is replaced by "Title 22, Division 4, Chapter 17, California Code of Regulations";

(G) section 141.700(b)(1), the phrase "§ 141.2" is replaced by "section 64402.30";

(H) section 141.700(b)(2), the phrase "National Primary Drinking Water Regulations" is replaced by "Title 22, Division 4, Chapter 17, California Code of Regulations";

(I) section 141.703(d)(1), the phrase "§ 141.173(b) or § 141.522(a)" is replaced by "sections 64653(e) and (f)";

(J) section 141.709(c)(2), the phrase "§ 141.172 or §§ 141.530 through 141.536" is replaced by "section 64656.5(a)";

(K) section 141.712(d), the phrase "§ 141.72(a)" is replaced by "section 64652.5(k)";

(L) section 141.718(b), the phrase "§ 141.174 or § 141.560" is replaced by "sections 64655 and 64661"; and

(M) section 141.719(b), the phrase "§ 141.2" is replaced by "section 64651.54";

(2) Long Term 2 Enhanced Surface Water Treatment Rule, Correction published in 71 Federal Register 6136 (February 6, 2006), which is incorporated by reference: section 141.719; and

(3) Minor Correction to Stage 2 Disinfectants and Disinfection Byproducts Rule and Changes in References to Analytical Methods published in 74 Federal Register 30953 (June 29, 2009), which are incorporated by reference: sections 141.74 and 141.704.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, 116365~~,~~ and 116375~~, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116625 and 131051~~, Health and Safety Code.

(2) Adopt Section 64651.12 as follows:

§ 64651.12. Bag Filters.

"Bag filters" mean pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to outside.

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

(3) Adopt Section 64651.13 as follows:

§ 64651.13. Bank Filtration.

"Bank filtration" means a water treatment process that uses a well to recover surface water that has naturally infiltrated into ground water through a river bed or bank(s). Infiltration is typically enhanced by the hydraulic gradient imposed by a nearby pumping water supply or other well(s).

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

(4) Adopt Section 64651.15 as follows:

§ 64651.15. Cartridge Filters.

"Cartridge filters" mean pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed as rigid or semi-rigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

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

(5) Adopt Section 64651.48 as follows:

§ 64651.48. Flowing Stream.

"Flowing stream" means a course of running water flowing in a definite channel.

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

(6) Adopt Section 64651.52 as follows:

§ 64651.52. Lake/Reservoir.

"Lake/reservoir" means a natural or man-made basin or hollow on the Earth's surface in which water collects or is stored that may or may not have a current or single direction of flow.

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

(7) Adopt Section 64651.54 as follows:

§ 64651.54. Membrane Filtration.

"Membrane filtration" means a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

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

(8) Adopt Section 64651.61 as follows:

§ 64651.61. Plant Intake.

"Plant intake" means the works or structures at the head of a conduit through which water is diverted from a source (e.g., river or lake) into the treatment plant.

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

(9) Adopt Section 64651.62 as follows:

§ 64651.62. Presedimentation.

"Presedimentation" means a preliminary treatment process used to remove gravel, sand, and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant.

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

(10) Amend Section 64651.88 as follows:

§ 64651.88. Uncovered Finished Water Storage Facility.

"Uncovered finished water storage facility" means a tank, reservoir, or other facility ~~that is open to the atmosphere with no cover or other means to prevent access by waterfowl, rodents, or other pests and is~~ used to store water that will undergo no further treatment to reduce microbial pathogens except residual disinfection and is directly open to the atmosphere.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275, 116365,~~ 116350 and 116375~~, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116625 and 131051~~, Health and Safety Code.

ARTICLE 2. TREATMENT TECHNIQUE REQUIREMENTS, WATERSHED PROTECTION REQUIREMENTS, AND PERFORMANCE STANDARDS

(11) Amend Section 64652 as follows:

§ 64652. Treatment Technique Requirements and Compliance Options.

(a) ~~Each~~ A supplier using an approved surface water shall provide multibarrier treatment that meets the requirements of this chapter and reliably ensures at least, between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer:

(1) A total of 99.9 percent reduction of *Giardia lamblia* cysts through filtration and disinfection; ~~and~~

(2) A total of 99.99 percent reduction o~~r~~f viruses through filtration and disinfection~~.~~; and

(3) A total of 99 percent removal of *Cryptosporidium* through filtration.

(b) ~~Suppliers~~A supplier meeting the requirements of section 64654 in combination with either section 64652.5 or 64653 shall be deemed to be in compliance with the minimum reduction requirements specified in ~~section 64652(a)~~subsections (a)(1) and (a)(2).

~~(c) For treatment plants existing as of June 13, 1990, which do not consist of the approved technologies specified in section 64653(a), or are not in compliance with the design criteria specified in section 64658, the supplier shall submit a report demonstrating that the plant can be operated to reliably produce water meeting the performance requirements of sections 64653 and 64654. This demonstration shall be a presentation and analysis of the latest 12 months of operating data, and special studies conducted to test the performance of the plant under adverse water quality conditions or~~

~~other means. The supplier shall submit the required report within 15 months of being notified by the Department pursuant to section 64650(b) that their plant does not consist of the approved technologies.~~

~~(d) In addition to complying with subsections (a) through (c), a supplier using an approved surface water and serving at least 10,000 people shall also comply with the requirements of Article 3.5, commencing with section 64657.~~

(c) A supplier meeting the requirements of section 64652.5 or 64653 shall be deemed to be in compliance with the minimum removal requirement specified in subsection (a)(3).

(d) A supplier serving 10,000 or more persons shall not begin construction of an uncovered finished water storage facility. If a supplier serving fewer than 10,000 persons began construction of a finished water reservoir on or after March 15, 2002, the reservoir shall be covered.

(e) A supplier that uses conventional or direct filtration treatment and recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes shall comply with the recycle requirement of section 64653.5(b).

(f) A supplier shall comply with the disinfection profiling and benchmarking requirements of section 64656.5.

(g) A supplier shall comply with the treatment technique and microbial toolbox component requirements specified in sections 64650(f)(1) and (2).

(~~e~~h) No variances from the requirements in this section are permitted.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 1~~16270, 116275,~~ 116350, 116365~~,~~ and 116375~~, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051~~, Health and Safety Code.

(12) Amend Section 64652.5 as follows:

§ 64652.5. Criteria for Avoiding Filtration.

(a) A supplier that uses an approved surface water shall meet all of the requirements of this section to avoid the necessity of providing filtration. ~~A supplier that uses an approved surface water and serves at least 10,000 people shall also meet the requirements of section 64657.10 to avoid the necessity of providing filtration.~~ Within 18 months of the failure of a supplier using an approved surface water to meet any one of the requirements of subsections (b) through (l) ~~or section 64657.10~~, the supplier shall have installed filtration and meet the requirements for filtered systems specified in sections 64653, 64658, 64659, 64660, and 64661 ~~and Article 3.5, commencing with section 64657~~.

(b) The approved surface water quality shall be monitored downstream of all surface water and groundwater under the influence of surface water contributions and upstream of the first or only point of disinfectant application, as follows:

(1) For fecal or total coliform density at the following minimum frequency each week:

System size (persons served)	*Samples/week*
≤ 500	1
501-3,300	2*
3,301-10,000	3*
10,001-25,000	4*
> 25,000	5*

*Shall be taken on separate days.

(2) For fecal or total coliform density, once every day the turbidity of the source water exceeds 1 NTU unless the Department determines that the system, for logistical reasons outside the system's control, is unable to have the sample analyzed within 30 hours of collection. If collected, these samples count toward the weekly coliform sampling requirement~~.~~; and

(3) For turbidity at a minimum frequency of once every four hours. A supplier may substitute continuous turbidity monitoring for grab sample monitoring if, at regular intervals, it validates the accuracy of the continuous measurement using a protocol approved by the Department.

(c) The approved surface water quality monitored pursuant to subsection (b) shall meet the following criteria:

(1) The fecal coliform concentration shall be equal to or less than 20/100 m~~l~~L, or the total coliform concentration shall be equal to or less than 100/100 m~~l~~L, in representative samples of the approved surface water in at least 90 percent of the measurements made for the six previous months that the system served unfiltered approved surface water to the public on an ongoing basis. If a system measures both fecal and total coliforms, the fecal coliform criterion, not the total coliform criterion, in this paragraph shall be met~~.~~; and

(2) The turbidity level shall not exceed 5 NTU in representative samples of the approved surface water unless:

(A) The Department determines that any such event was caused by circumstances that were unusual and unpredictable; and

(B) As a result of any such event, there have not been more than two events in the past 12 months the system served unfiltered approved surface water to the public, or more than five events in the past 120 months the system served unfiltered approved surface water to the public, in which the turbidity level exceeded 5 NTU. An “event” is one day or a series of consecutive days during which at least one turbidity measurement each day exceeds 5 NTU.

(d) Water quality information collected pursuant to subsection (a) shall be reported to the Department in conformance with the requirements of 40 CFR section 141.75(a)(1) (54 Fed. Reg. ~~27535~~27486~~,~~ (June 29, 1989)), which is incorporated by reference.

(e) The supplier shall maintain a watershed control program which minimizes the potential for contamination by *Giardia lamblia* cysts, ~~and~~ viruses, and *Cryptosporidium* oocysts in the source water. The adequacy of ~~a~~the program to limit potential contamination by *Giardia lamblia* cysts, ~~and~~ viruses, and *Cryptosporidium* oocysts shall be determined by: the comprehensiveness of the watershed review; the effectiveness of the supplier's program to monitor and control detrimental activities occurring in the watershed; and the extent to which the water system has maximized land ownership and/or controlled land use within the watershed. At a minimum, the watershed control program shall:

(1) Characterize the watershed hydrology and land ownership;

(2) Identify watershed characteristics and activities which may have an adverse effect on source water quality;

(3) Monitor the occurrence of activities which may have an adverse effect on source water quality. The supplier shall demonstrate through ownership and/or written agreements with landowners within the watershed that it can control all human activities which may have an adverse impact on the microbiological quality of the water. The supplier shall submit an annual report to the Department that identifies any special concerns about the watershed and how they are being handled; describes activities in the watershed that affect water quality; and projects what adverse activities are expected to occur in the future and how the public water system expects to address them; and

(4) Monitor the presence of *Giardia lamblia* cysts in the approved surface water whenever agricultural grazing, water oriented recreation, or point source domestic wastewater discharges occur on the watershed. At a minimum the monitoring shall measure the *Giardia lamblia* cyst concentration monthly at a point immediately prior to the first or only point of disinfectant application. The monitoring results shall be included in an annual report to the Department. This monitoring requirement may be waived after one year for a supplier~~s~~ serving fewer than 500 persons when the monitoring results indicate a mean *Giardia lamblia* cyst concentration of 1 cyst per 100 liter~~e~~s or less.

(f) The water system shall be subject to an annual on-site inspection to assess the watershed control program and disinfection treatment process. Either the Department or a party approved by the Department shall conduct the on-site inspection. The inspection shall be conducted by competent individuals who have a sound understanding of public health principles and waterborne diseases, such as sanitary

engineers, civil engineers, environmental health specialists, or technicians who have experience and knowledge about the operation and maintenance of a public water system. A report of the on-site inspection summarizing all findings shall be prepared every calendar year and submitted to the Department, if not conducted by the Department, by December 31 of that year. The on-site inspection shall be comprehensive to enable the Department to determine whether the watershed control program and disinfection treatment process are adequately designed and maintained. The on-site inspection shall include:

(1) A review of the effectiveness of the watershed control program;

(2) A review of the physical condition of the source intake and how well it is protected;

(3) A review of the supplier's equipment maintenance program to ensure there is low probability for failure of the disinfection process;

(4) An inspection of the disinfection equipment for physical deterioration;

(5) A review of operating procedures;

(6) A review of data records to ensure that all required tests are being conducted and recorded and disinfection is effectively practiced; and

(7) Identification of any improvements which are needed in the equipment, system maintenance and operation, or data collection.

(g) The water system shall not have been identified as a source of a waterborne microbial disease outbreak, or if it has been so identified, the system shall have been modified sufficiently to prevent another such occurrence, as determined by the Department.

(h) The water system shall comply with the total coliform maximum contaminant level (MCL) specified in 22 CCR section 64426.1 at least 11 of the 12 previous months that the system served water to the public on an ongoing basis, unless the Department determines that failure to meet this requirement was not caused by the unfiltered approved surface water.

(i) The water system shall comply with the requirements for total trihalomethanes, haloacetic acids (five), bromate, chlorite, chlorine, chloramines, and chlorine dioxide specified in 22 CCR, division 4, chapter 15.5, commencing with section 64530.

(j) The supplier shall provide to the Department an annual report, by December 31st of each year, which summarizes its compliance with all the watershed control program requirements.

(k) The water system shall meet the following special disinfection requirements:

(1) The water system shall not fail to provide disinfection treatment sufficient to ensure at least a 99.9 percent inactivation of *Giardia lamblia* cysts and a 99.99 percent inactivation of viruses for more than one day in any month the water system served unfiltered approved surface water. The means used to demonstrate the required percent inactivation with disinfection shall be ~~as identified~~ in conformance with the requirements of 40 CFR sections 141.72(a)(1), and 141.74(b)(3) and (b)(4) (54 Fed. Reg. 27486 (June 29, 1989)), which are incorporated by reference. Disinfection information collected pursuant to this subsection shall be reported to the Department in conformance with the requirements of 40 CFR section 141.75(a)(2) (54 Fed. Reg. 27486 (June 29, 1989)), which is incorporated by reference. The necessity to install

filtration as a result of a failure to meet the requirements in subsection (c) will not apply if:

(A) Either the supplier meets the requirements of subsection (c) at least 11 of the 12 previous months that the system served unfiltered approved surface water to the public on an ongoing basis~~,~~; or

(B) The system fails to meet the requirements of subsection (c) during 2 of the 12 previous months that the system served unfiltered approved surface water to the public~~,~~; and

(C) The Department determines that failure to meet the requirements in subsection (c) for at least one of these months was caused by circumstances that were unusual and unpredictable.

(2) The disinfection system shall have either:

(A) Redundant components, including an auxiliary power supply with automatic start-up and alarm to ensure that disinfectant application is maintained continuously while water is being delivered to the distribution system; or

(B) Automatic shut-off of delivery of water to the distribution system whenever there is less than 0.2 mg/~~l~~L of residual disinfectant concentration in the water.

(3) The water system shall meet the requirements of section 64654(b)(1) at all times the system serves unfiltered approved surface water to the public unless the Department determines that any such failure was caused by circumstances that were unusual and unpredictable~~.~~; and

(4) The water system shall meet the requirements of section 64654(b)(2) on an ongoing basis unless the Department determines that failure to meet these

requirements was not caused by a deficiency in treatment of the unfiltered approved surface water.

(l) Whenever the monitoring of the quality of the approved surface water indicates the turbidity exceeds 5.0 NTU, or the fecal coliform level exceeds 20/100 mL or the total coliform concentration exceeds 100/100 mL in 10 percent or more of the samples collected in the previous six months during which the system served unfiltered approved surface water to the public on an ongoing basis, the source shall be removed from service. The source may be returned to service when monitoring subsequent to removing the source from service demonstrates that the turbidity is less than or equal to 5.0 NTU and the fecal coliform level is less than or equal to 20/100 mL or the total coliform level is less than or equal to 100/100 mL for two consecutive days, and *Giardia lamblia* monitoring results indicate 1 cyst per 100 liters or less. If a system measures both fecal and total coliforms, the fecal coliform criterion, not the total coliform criterion, in this subsection shall be met.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, 116365, 116375, 116385, ~~116390, 116400, 116525, 116530, 116535, 116540, 116550, 116625,~~ and 116735 ~~and 131051~~, Health and Safety Code.

(13) Amend Section 64653 as follows:

§ 64653. Filtration.

(a) All approved surface water utilized by a supplier shall be treated using one of the following filtration technologies unless an alternative process has been approved by the Department pursuant to subsections (e), (f), (g), and (h):

(1) Conventional filtration treatment;

(2) Direct filtration treatment;

(3) Diatomaceous earth filtration; or

(4) Slow sand filtration.

(b) Conventional filtration treatment shall be deemed to be capable of achieving at least 99.7 percent removal of *Giardia lamblia* cysts, ~~and~~ 99 percent removal of viruses, and 99 percent removal of *Cryptosporidium* when in compliance with operati~~o~~ng criteria specified in section 64660 and performance standards specified in ~~subsection(c)~~table 64653. Direct filtration treatment, diatomaceous earth filtration, and slow sand filtration shall be deemed to be capable of achieving at least 99 percent removal of *Giardia lamblia* cysts, ~~and a~~ 90 percent removal of viruses, and 99 percent removal of *Cryptosporidium* when in compliance with operati~~o~~ng criteria specified in section 64660 and performance standards specified in ~~subsections (c) and (d)~~table 64653.

~~(c) Conventional filtration, direct filtration, or diatomaceous earth filtration shall comply with the following performance standards for each treatment plant:~~

~~(1) The turbidity level of the filtered water shall be equal to or less than 0.5 NTU in 95 percent of the measurements taken each month and shall not exceed 5.0 NTU at any time.~~

~~(2) For those suppliers using a grab sampling monitoring program the turbidity level of the filtered water shall not exceed 1.0 NTU in more than two samples taken consecutively while the plant is in operation. For those suppliers using a continuous monitoring program the turbidity level of the filtered water shall not exceed 1.0 NTU for more than eight consecutive hours while the plant is in operation.~~

~~(3) A supplier serving at least 10,000 people and using either conventional filtration or direct filtration shall meet the turbidity requirements specified in section 64657.30(a)(2) in lieu of subsections (c)(1) and (c)(2).~~

~~(d) Slow sand filtration shall comply with the following performance standards for each treatment plant:~~

~~(1) The turbidity level of the filtered water shall be less than or equal to 1.0 NTU in 95 percent of the measurements taken each month. However, filtered water from the treatment plant may exceed 1.0 NTU, provided the filter effluent prior to disinfection meets the maximum contaminant level for total coliforms as specified in 22 CCR section 64426.1.~~

~~(2) The turbidity level of the filtered water shall not exceed 5.0 NTU at any time.~~

(c) A supplier shall comply with the combined filter effluent turbidity performance standards in table 64653 for each treatment plant while the plant is in operation:

Table 64653

Combined Filter Effluent Turbidity Performance Standards[(a)]

If a supplier uses…	*The turbidity level of the combined filter effluent…*

(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month; (B) Shall not exceed 1 NTU for more than one continuous hour; (C) Shall not exceed 1 NTU at four-hour intervals; and (D) Shall not exceed 1.0 NTU for more than eight consecutive hours.
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons	(A) Shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month; (B) For a supplier using a grab sample monitoring program: 1. Shall not exceed 1 NTU; and 2. Shall not exceed 1.0 NTU in more than two consecutive samples; and (C) For a supplier using a continuous monitoring program: 1. If recording results at least once every 15 minutes, shall comply with paragraph (1)(B); and 2. Shall comply with paragraphs (1)(C) and (1)(D).
(3) Diatomaceous earth filtration	(A) Shall be less than or equal to 0.5 NTU in at least 95 percent of the measurements taken each month;

(B) Shall not exceed 5.0 NTU;

(C) For a supplier using a grab sample monitoring program, shall comply with paragraph (2)(B)2; and

(D) For a supplier using a continuous monitoring program, shall comply with paragraph (1)(D).

(4) Slow sand filtration

(A) Shall be less than or equal to 1.0 NTU in at least 95 percent of the measurements taken each month. Filtered water from the treatment plant may exceed 1.0 NTU, provided the filter effluent prior to disinfection meets the maximum contaminant level for total coliforms as specified in 22 CCR section 64426.1; and

(B) Shall not exceed 5.0 NTU.

(a) If there is only one filter at the treatment plant, the combined filter effluent turbidity performance standards shall apply to the effluent produced by the filter.

(~~e~~d) ~~In order t~~To obtain approval for a higher removal efficiency than that specified in subsection (b), a water supplier shall demonstrate to the Department that the higher removal efficiency can be reliably obtained.

(~~f~~e) An alternative to the filtration technologies specified in subsection (a) may be used provided that the supplier demonstrates to the Department that the alternative technology:

(1) ~~p~~Provides a minimum of 99 percent *Giardia lamblia* cyst removal, ~~and~~ 90 percent virus removal for the supplier~~s~~ serving more than 500 persons, ~~or 90 percent *Giardia lamblia* cyst removal for suppliers serving 500 or fewer persons, and meets the turbidity performance standards established in subsection (d). A supplier serving at least 10,000 people shall also provide a minimum of~~ and 99 percent *Cryptosporidium* ~~oocyst~~ removal; and

(2) ~~m~~Meets the turbidity performance standards established ~~in section 64657.30(a)(2)~~by the Department, as determined from the alternative filtration technology demonstration conducted pursuant to subsection (f). The turbidity performance standards shall not be less stringent than the turbidity performance standards established in subsection (c)(1).

(f) The alternative filtration technology demonstration shall be based on the results from a prior equivalency demonstration or a testing of a full scale installation that is treating a water with similar characteristics and is exposed to similar hazards as the water proposed for treatment. A pilot plant test of the water to be treated may also be used for this demonstration if conducted with the approval of the Department. The demonstration shall be presented in an engineering report prepared by a qualified engineer.

(g) ~~Suppliers~~A supplier proposing to use an alternative filtration technology may request from the Department a waiver to comply with the requirements of subsection (~~f~~e) to demonstrate 90 percent virus removal. The request shall be based on a watershed sanitary survey conducted in accordance with section 64665, within 12

months of the date of the request, that demonstrates a lack of virus hazard in the watershed.

(h) The Department's approval of alternative filtration technologies, including establishment of performance standards and monitoring requirements, shall be done in accordance with the permit process specified in sections 116525 through 116550 of the Health and Safety Code.

(i) Within 60 days following the first full year of operation of a new alternative filtration treatment process approved by the Department, the supplier shall submit an engineering report prepared by a qualified engineer describing the effectiveness of the plant operation. The report shall include results of all water quality tests performed and shall evaluate compliance with established performance standards under actual operating conditions. It shall also include an assessment of problems experienced, corrective actions needed, and a schedule for providing needed improvements.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, 116365, 116375, 116385, ~~116390, 116400,~~ 116525, 116530, ~~116535,~~ 116540, 116550, ~~116555, 116625,~~ and 116735 ~~and 131051~~, Health and Safety Code.

ARTICLE 3. MONITORING REQUIREMENTS

(14) Adopt Section 64654.8 as follows:

§ 64654.8. Source, Raw, Settled, and Recycled Filter Backwash Water Monitoring.

(a) A supplier shall comply with the source monitoring requirements specified in section 64650(f).

(b) Pursuant to the operations plan required by section 64661, a supplier shall:

(1) Monitor the raw water supply for:

(A) Turbidity at least once a day; and

(B) Total coliform and either fecal coliform or *E. coli* bacteria using density analysis at least once a month;

(2) If using conventional filtration treatment, monitor the turbidity of the settled water at least once a day; and

(3) If recycling filter backwash water, monitor the turbidity and determine the flow of the recycled water at least once a day or once during each recycle event. Monitoring shall be representative of the recycled water.

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

(15) Amend Section 64655 as follows:

§ 64655. ~~Treatment Plant Process~~Filtration Monitoring.

~~(a) Each supplier using an approved surface water source shall monitor the turbidity level of each raw water supply by the taking and analyzing of daily grab samples.~~

~~(b) Each supplier using an approved surface water source shall monitor the raw water supply for total coliform and either fecal coliform or *E. coli* bacteria using density analysis no less than once each month. Monitoring shall be conducted in accordance with the operations plan required by section 64661.~~

~~(c) Each supplier using conventional filtration shall monitor the turbidity of the settled water at least once each day in accordance with the operations plan required by section 64661.~~

~~(d) Each supplier recycling filter backwash water shall monitor the turbidity and determine the flow of the recycled water at least once each day or during each recycle event. Monitoring shall be representative of the water recycled and be conducted in accordance with the operations plan required by section 64661.~~

(~~e~~a) To determine compliance with the performance standards specified in section 64653~~, each supplier shall determine the turbidity level of representative samples of the combined filter effluent, prior to clearwell storage, at least once every four hours that the system is in operation, except as provided in subsections (g) and (h). Monitoring shall be conducted in accordance with the operations plan required by section 64661.~~ and the operating criteria in section 64660, a supplier shall conduct turbidity monitoring in accordance with table 64655. Monitoring shall be conducted when the treatment plant is in operation and pursuant to the operations plan required by section 64661.

Table 64655

Filtered Water Turbidity Monitoring

If a supplier uses…	*Turbidity monitoring shall be conducted of…*	*And the turbidity level shall be recorded…*
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Each individual filter, continuously; and	At least once every 15 minutes
	(B) The combined filter effluent[(b)], continuously	At least once every 15 minutes
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons[(a)]	(A) Each individual filter, continuously[(c)]; and	At least once every 15 minutes
	(B) The combined filter effluent[(b)], by grab sample at least once every four hours[(d)]	At least once every four hours
(3) Diatomaceous earth or slow sand filtration[(a)]	The combined filter effluent[(b)], by grab sample at least once every four hours[(d)]	At least once every four hours

(a) A supplier using slow sand filtration, or serving 500 or fewer persons, that is in compliance with

the performance standards specified in section 64653 may reduce turbidity monitoring of the combined filter effluent to one grab sample per day. The result shall be recorded daily.

(b) Representative sample prior to clearwell storage.

(c) If there are two or fewer filters, a supplier may conduct continuous monitoring of the combined filter effluent in lieu of continuous monitoring of each individual filter. The results shall be recorded at least once every 15 minutes.

(d) Continuous turbidity measurements may be substituted for grab sample monitoring provided the supplier validates the accuracy of the measurements on a weekly basis.

~~(f) Continuous turbidity measurements may be substituted for grab sample monitoring provided the supplier validates the accuracy of the measurements on a weekly basis.~~

~~(g) Suppliers using slow sand filtration or serving 500 or fewer persons which are in compliance with performance standards specified in section 64653, may reduce turbidity monitoring to one grab sample per day.~~

~~(h) Each supplier using conventional filtration or direct filtration, and serving at least 10,000 people shall conduct turbidity monitoring pursuant to section 64657.40 in lieu of subsection (e).~~

(b) A supplier shall calibrate turbidimeters used for continuous turbidity monitoring according to the procedure specified by the manufacturer.

(c) If there is an interruption in continuous turbidity monitoring due to equipment failure or maintenance, a supplier that uses conventional or direct filtration treatment shall conduct grab sample monitoring once every four hours in lieu of continuous monitoring until the continuous turbidimeter is back on-line. From the time of equipment failure or maintenance interruption, continuous monitoring shall be reinitiated:

(1) For a supplier serving 10,000 or more persons, within 48 hours for the combined filter effluent and within five working days for the individual filter effluent; or

(2) For a supplier serving fewer than 10,000 persons, within 14 working days for the individual filter effluent.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, ~~116365,~~ 116375~~,~~ and 116385~~, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051~~, Health and Safety Code.

(16) Amend Section 64656 as follows:

§ 64656. Disinfection Monitoring.

(a) To determine compliance with disinfection inactivation requirements specified in section 64654(a), ~~each~~a supplier shall develop and conduct a monitoring program to measure those parameters that affect the performance of the disinfection process. This shall include but not be limited to the temperature of the disinfected water, the pH(s) of the disinfected water if chlorine is used as a disinfectant, the disinfectant contact time(s) and the residual disinfectant concentration(s) before or at the first customer. The monitoring program shall be described in the operations plan required by section 64661.

(b) To determine compliance with the performance standard specified in section 64654(b)(1), the disinfectant residual concentration of the water being delivered to the distribution system shall be measured and recorded continuously except as provided in subsection (f).

(c) To determine compliance with section 64654(b)(2), the residual disinfectant concentration ~~must~~shall, at a minimum, be measured ~~at least~~ at the same points in the distribution system and at the same time as total coliforms are sampled in accordance with 22 CCR section 64421, and described in the operations plan required by section 64661, except as provided in subsection (d).

(d) ~~For~~A suppliers that uses both an approved surface water and a groundwater~~, the Department shall approve a request to~~may take disinfectant residual samples at points other than those specified in subsection (c) provided the supplier demonstrates to the Department that such sampling points are representative of the disinfected approved surface water in the distribution system.

(e) If there is a failure of continuous disinfectant residual monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment.

(f) A ~~S~~suppliers serving 3,300 or fewer persons may collect and analyze grab samples of disinfectant residual each day as shown below in lieu of the continuous monitoring specified in subsection (b), provided that any time the residual disinfectant falls below 0.2 mg/~~l~~L, the supplier shall take a grab sample every four hours until the residual concentration is equal to or greater than 0.2 mg/~~l~~L:

System size by population	*Samples/day*
less than or equal to 500	1
501 - 1,000	2
1,001 - 2,500	3
2,501 - 3,300	4

(g) A ~~S~~suppliers shall describe the location and frequency of sampling to comply with subsection (f) in the operations plan required by section 64661.

NOTE: Authority cited: Sections ~~100275 and~~116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, ~~116365,~~ 116375~~,~~ and 116385~~, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, and 116735~~, Health and Safety Code.

(17) Adopt Section 64656.5 as follows:

§ 64656.5. Disinfection Profiling and Benchmarking.

(a) A supplier that has developed a disinfection profile pursuant to 40 Code of Federal Regulations sections 141.172(a) and (b) (63 Fed. Reg. 69478 (December 16, 1998); amended Jan. 16, 2001, 66 Fed. Reg. 3770), which are incorporated by reference and a community water system or nontransient-noncommunity water system serving fewer than 10,000 persons that has developed a disinfection profile pursuant to 40 Code of Federal Regulations sections 141.530 through 141.535 (67 Fed. Reg. 1812 (January 14, 2002); amended June 29, 2004, 69 Fed. Reg. 38850), which are incorporated by reference, shall:

(1) Retain disinfection profile data and make it available to the Department upon request; and

(2) Submit the following information to the Department when applying for an amended permit to change the point of disinfection, disinfectant(s) used in the treatment plant, or disinfection process:

(A) A description of the proposed change;

(B) The disinfection profile developed pursuant to subsection (a);

(C) The benchmark conducted pursuant to 40 Code of Federal Regulations section 141.172(c) (63 Fed. Reg. 69478 (December 16, 1998)) or sections 141.540 through 141.544 (67 Fed. Reg. 1812 (January 14, 2002)), which are incorporated by reference; and

(D) An analysis of how the proposed change will affect the current levels of disinfection.

(b) A supplier that did not conduct optional TTHM and HAA5 monitoring under 40 CFR section 141.172 because they served fewer than 10,000 persons when such monitoring was required, but served more than 10,000 persons prior to January 1, 2005, shall:

(1) Consult with the Department to establish a disinfection benchmark;

(2) Submit the following information to the Department when applying for an amended permit to change the point of disinfection, disinfectant(s) used in the treatment plant, or disinfection process:

(A) The information described in subsections (a)(2)(A) and (a)(2)(C); and

(B) The disinfection profile and benchmark conducted pursuant to 40 Code of Federal Regulations sections 141.172(b) and (c) (63 Fed. Reg. 69478 (December 16, 1998); amended Jan. 16, 2001, 66 Fed. Reg. 3770), which are incorporated by reference; and

(3) Retain the disinfection profile data developed pursuant to paragraph (2)(B).

(c) A supplier shall comply with the disinfection profiling and benchmarking requirements specified in section 64650(f)(1).

NOTE: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116350, 116365, 116375, 116385, 116525, 116530, 116540 and 116550, Health and Safety Code.

ARTICLE 3.5. ENHANCED FILTRATION AND DISINFECTION

(18) Repeal Section 64657 as follows:

§ 64657. General Requirements.

~~(a) A supplier using an approved surface water and serving at least 10,000 people shall comply with the requirements in this Article.~~

~~(b) A supplier shall achieve at least 99 percent (2-log) removal of *Cryptosporidium* between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer for filtered water systems, or achieve *Cryptosporidium* control under the watershed control plan for unfiltered systems.~~

~~(c) A supplier is considered to be in compliance with the requirements of subsection (b) if:~~

~~(1) It meets the requirements for avoiding filtration in sections 64652.5 and 64657.10 and the requirements in sections 64654 and 64657.20; or~~

~~(2) It meets the applicable filtration requirements in either section 64653 or section 64657.30 and the requirements in sections 64654 and 64657.20.~~

~~(d) A supplier shall not begin construction of an uncovered finished water storage facility.~~

NOTE: Authority cited: Sections 100275, 116375 and 131200, Health and Safety Code. Reference: Sections 116270, 116275, 116365, 116375, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051, Health and Safety Code.

(19) Repeal Section 64657.10 as follows:

§ 64657.10. Criteria for Avoiding Filtration.

~~(a) In addition to the requirements specified in section 64652.5, a supplier shall meet all of the requirements of this section to avoid the necessity of providing filtration.~~

~~(b) To minimize the potential for contamination by *Cryptosporidium* oocysts in the source water, the watershed control program required in section 64652.5(e) shall:~~

~~(1) Identify watershed characteristics and activities that may have an adverse effect on source water quality; and~~

~~(2) Monitor the occurrence of activities that may have an adverse effect on source water quality.~~

~~(c) The onsite inspection conducted pursuant to section 64652.5(f) shall also determine if the program will minimize the potential for contamination by *Cryptosporidium* based on an evaluation of the following:~~

~~(1) The comprehensiveness of the watershed review;~~

~~(2) The effectiveness of the supplier's program to monitor and control detrimental activities occurring in the watershed; and~~

~~(3) The extent to which the water system has maximized land ownership and/or controlled land use within the watershed.~~

NOTE: Authority cited: Sections 100275, 116375 and 131200, Health and Safety Code. Reference: Sections 116270, 116275, 116350, 116365, 116375, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116625, 116735 and 131051, Health and Safety Code.

(20) Repeal Section 64657.20 as follows:

§ 64657.20. Disinfection Profiling and Benchmarking.

~~A supplier that has developed a disinfection profile pursuant to 40 Code of Federal Regulations parts 141.172(a) and (b) (63 Fed. Reg. 69477 (December 16, 1998); amended Jan. 16, 2001, 66 Fed. Reg. 3769, which are incorporated by reference, shall:~~

~~(a) Retain disinfection profile data and make it available to the Department upon request; and~~

~~(b) Submit the following information to the Department when applying for an amended permit to change the point of disinfection, disinfectant(s) used in the treatment plant, or disinfection process:~~

~~(1) A description of the proposed change;~~

~~(2) The disinfection profile and benchmark conducted pursuant to 40 Code of Federal Regulations part 141.172(c) (63 Fed. Reg. 69477 (December 16, 1998)), which is incorporated by reference; and~~

~~(3) An analysis of how the proposed change will affect the current levels of disinfection.~~

NOTE: Authority cited: Sections 100275, 116375 and 131200, Health and Safety Code. Reference: Sections 116270, 116275, 116365, 116375, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051, Health and Safety Code.

(21) Repeal Section 64657.30 as follows:

§ 64657.30. Filtration.

~~(a) Except as specified in subsection (b), a supplier that does not meet all of the criteria in sections 64652.5 and 64657.10 for avoiding filtration shall provide treatment consisting of both disinfection, as specified in section 64654, and filtration consisting of:~~

~~(1) Diatomaceous earth or slow sand filtration that meets the performance requirements specified for those technologies in sections 64653(c) and (d); or~~

~~(2) Conventional filtration or direct filtration that meets the following performance standards for each treatment plant:~~

~~(A) The turbidity level of the combined filter effluent shall be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month and shall not exceed 1 NTU for more than 1 continuous hour, measured pursuant to section 64657.40;~~

~~(B) The turbidity level of the combined filter effluent at four-hour intervals shall never exceed 1 NTU; and~~

~~(C) The turbidity level of the combined filter effluent shall not exceed 1.0 NTU for more than 8 consecutive hours while the plant is operating.~~

~~(b) An alternative to the filtration technologies specified in subsection (a) may be used provided that the supplier complies with sections 64653(f), (g), (h), and (i).~~

NOTE: Authority cited: Sections 100275, 116375 and 131200, Health and Safety Code. Reference: Sections 116270, 116275, 116365, 116375, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051, Health and Safety Code.

(22) Repeal Section 64657.40 as follows:

§ 64657.40. Filtration Sampling.

~~(a) In addition to monitoring required by sections 64655(a) through (d), and in lieu of the monitoring required by section 64655(e), a supplier that provides conventional filtration or direct filtration shall conduct continuous turbidity monitoring of each individual filter and the combined filter effluent. Monitoring shall be conducted pursuant to the operations plan required by section 64661 and monitoring of the combined filter effluent shall be conducted prior to clearwell storage.~~

~~(b) For the purpose of determining compliance with the performance standards specified in section 64657.30(a)(2) and the operating criteria specified in section 64660(b)(7), the results of the continuous monitoring shall be recorded at least once every 15 minutes that the treatment plant is in operation.~~

~~(c) A supplier shall calibrate turbidimeters used to comply with the requirements of this section using the procedure specified by the manufacturer.~~

~~(d) If there is a failure in the continuous turbidity monitoring system, or there are interruptions in continuous monitoring due to system maintenance, a supplier shall conduct grab sampling every four hours in lieu of continuous monitoring, but continuous monitoring shall be reinitiated within 48 hours of system failure or maintenance interruption for the combined effluent, and within five working days for individual filter effluents.~~

NOTE: Authority cited: Sections 100275, 116375 and 131200, Health and Safety Code. Reference: Sections 116270, 116275, 116365, 116375, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051, Health and Safety Code.

(23) Repeal Section 64657.50 as follows:

§ 64657.50. Supplemental Reporting and Recordkeeping.

~~(a) In lieu of the monthly reporting specified in section 64664(b), a supplier that provides conventional filtration or direct filtration shall include in the monthly report required by section 64664 the total number of combined filter effluent turbidity measurements taken during the month pursuant to section 64657.40 and either:~~

~~(1) The turbidity achieved 50, 90, 95, 98 and 99 percent of the time that the plant was producing water; and date, time, and value of any turbidity measurement taken during the month that exceed 1.0 NTU; or~~

~~(2) The results of turbidity measurements recorded at intervals no greater than every 4 hours; all results that exceed 0.3 NTU, recorded at intervals no greater than every 15 minutes; and the number and percent of turbidity measurements that are less than or equal to 0.3 NTU, based on all measurements recorded during the month at intervals no greater than every 15 minutes.~~

~~(b) A supplier that provides conventional filtration or direct filtration shall review the data reported according to subsection (a) to ensure that it is not compromised by system or instrument maintenance, hardware or software problems, signal transmission problems, or for other technical reasons.~~

~~(c) A supplier that provides conventional filtration or direct filtration shall include in the monthly report required by section 64664 the following information:~~

~~(1) That individual filter turbidity monitoring was conducted pursuant to section 64657.40; and~~

~~(2) The filter number, turbidity measurements, and date(s) and time(s) of the exceedance and either the obvious reason for the exceedance or, if the supplier is not~~

~~able to identify an obvious reason for the abnormal filter performance, a filter profile produced within 7 days of the exceedance, if either of the following occurs:~~

~~(A) An individual filter has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken no more than 15 minutes apart; or~~

~~(B) After a backwash or being taken offline for some other reason, any individual filter has a measured turbidity level of greater than 0.3 NTU in two consecutive measurements taken no more than 15 minutes apart after the filter has been in continuous operation for 60 minutes or more.~~

~~(d) For any individual filter that has a measured turbidity level of greater than 1.0 NTU in two consecutive measurements taken no more than 15 minutes apart at any time in each of three consecutive months, a supplier that provides conventional filtration or direct filtration shall conduct a self-assessment of the filter within 14 days of the exceedance and report to the Department that the self-assessment was conducted. The self-assessment shall consist of at least the following components: assessment of filter performance; development of a filter profile; identification and prioritization of factors limiting filter performance; assessment of the applicability of corrections; and preparation of a filter self-assessment report. The filter self-assessment report shall be submitted to the Department within 28 days of the exceedance.~~

~~(e) For any individual filter that has a measured turbidity level of greater than 2.0 NTU in two consecutive measurements taken no more than 15 minutes apart at any time in each of two consecutive months, a supplier that provides conventional filtration or direct filtration shall arrange with the Department for the conduct of a comprehensive performance evaluation (CPE) no later than 30 days following the exceedance and have~~

~~the evaluation completed and submitted to the Department no later than 90 days following the exceedance. The CPE shall be conducted pursuant to "Optimizing Water Treatment Plant Performance Using the Composite Correction Program", EPA Handbook, Chapter 4, pg. 21-65, Office of Research and Development, USEPA, EPA/625/6-91/027 (revised August 1998) which is incorporated by reference.~~

NOTE: Authority cited: Sections 100275, 116375, 116450 and 131200, Health and Safety Code. Reference: Sections 116270, 116275, 116365, 116375, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051, Health and Safety Code.

ARTICLE 5. OPERATION

(24) Amend Section 64660 as follows:

§ 64660. Operating Criteria.

(a) All treatment plants utilizing an approved surface water shall be operated by operators certified by the Department in accordance with Health and Safety Code section 106885.

(b) Filtration facilities shall be operated in accordance with the following requirements:

(1) Conventional and direct filtration treatment plants shall be operated at ~~flow~~ filtration rates not to exceed 3.0 gallons per minute per square foot (gpm/sq. ft.) for single media filters and 6.0 gpm/sq. ft. for deep bed, dual or mixed media filters under gravity flow conditions. For pressure filters, filtration rates shall not exceed 2.0 gpm/sq. ft. for single media filters and 3.0 gpm/sq. ft. for dual, mixed media, or deep bed filters~~.~~;

(2) Slow sand filters shall be operated at filtration rates not to exceed 0.10 gallon per minute per square foot. The filter bed shall not be dewatered except for cleaning and maintenance purposes~~.~~;

(3) Diatomaceous earth filters shall be operated at filtration rates not to exceed 1.0 gallon per minute per square foot~~.~~;

(4) ~~In order t~~To obtain approval for filtration rates higher than, but not more than twice, those specified in ~~section 64660~~paragraphs ~~(b)~~(1), ~~(b)~~(2), and ~~(b)~~(3), a water supplier shall demonstrate to the Department that the filters can comply with the performance requirements of section 64653~~.~~;

(5) ~~In order t~~To obtain approval for filtration rates greater than twice those specified in paragraphs ~~(b)~~(1), ~~(b)~~(2), and ~~(b)~~(3), a water supplier shall demonstrate to the Department that the filters do the following:

(A) Provide a minimum of 99 percent *Giardia lamblia* cyst removal, ~~and~~ 90 percent virus removal, and 99 percent *Cryptosporidium* removal; and

(B) Meet the turbidity performance standards established in section 64653(c); ~~and~~

~~(C) If a supplier serves at least 10,000 people, provide a minimum 99 percent *Cryptosporidium* oocyst removal and meet the turbidity performance standards established in section 64657.30.~~

(6) Filtration rates shall be increased gradually when placing filters back into service following backwashing or any other interruption in the operation of the filter~~.~~;

(7) When any individual filter in a conventional or direct filtration treatment plant is placed back into service following backwashing or other interruption event, the filtered water turbidity of the effluent from that filter shall not exceed any of the ~~following:~~ individual filter turbidity performance triggers in table 64660, subparagraphs (A) through (D). The filtered water turbidity of the effluent from any individual filter in a conventional or direct filtration treatment plant shall not exceed any of the individual filter turbidity performance triggers in table 64660, subparagraphs (E) through (G). If an exceedance occurs, a supplier shall comply with the required follow-up action in table 64660:

~~(A) 2.0 NTU at any time during the first four hours of filter operation following all interruption events.~~

~~(B) 1.0 NTU at any time during the first four hours of filter operation following at least 90 percent of the interruption events during any consecutive 12 month period.~~

~~(C) 0.5 NTU at the time that the filter has been in operation for 4 hours.~~

Table 64660

Individual Filter Turbidity Performance Triggers

and Required Follow-Up Actions for a Trigger Exceedance[(a)]

Performance Trigger at Any Time During the First Four Hours of Operation	*Required Follow-Up Actions*
(A) 2.0 NTU	1. The supplier shall take the filter unit out of service and inspect it to determine the cause of its inadequate performance; and 2. The supplier shall not return the filter unit to service until deficiencies have been corrected and operations tests demonstrate that the filter unit is meeting the performance triggers of subparagraphs (A), (B), and (C).
(B) 1.0 NTU following at least 90 percent of the interruption events during any period of 12 consecutive months	The supplier shall comply with the required follow-up actions of subparagraphs (A)1. and (A)2.

Performance Trigger at the Time

that the Filter has been in Operation for Four Hours	*Required Follow-Up Action*
(C) 0.5 NTU	The supplier shall comply with the required follow-up actions of subparagraphs (A)1. and (A)2.

Performance Trigger in Two Consecutive Measurements Taken No More than 15 Minutes Apart	*Required Follow-Up Action*
(D) For a supplier serving 10,000 or more persons, 0.3 NTU after the filter has been in continuous operation for 60 minutes or more	Within seven days of the exceedance, the supplier shall produce a filter profile if the supplier is unable to identify and report a reason for the abnormal filter performance.
(E) 1.0 NTU	A supplier serving 10,000 or more persons shall comply with the required follow-up action of subparagraph (D).

(F) 1.0 NTU for three consecutive months	1. Within 14 days of the exceedance, the supplier shall conduct a self-assessment of the filter. The self-assessment shall consist of the following components as a minimum: assessment of filter performance; development of a filter profile; identification and prioritization of factors limiting filter performance; assessment of the applicability of corrections; and preparation of a filter self-assessment report; 2. A supplier serving fewer than 10,000 persons shall conduct a self-assessment unless a comprehensive performance evaluation (CPE) was conducted pursuant to an exceedance of subparagraph (G); and 3. A supplier serving fewer than 10,000 persons and monitoring pursuant to footnote (c) of table 64655 shall conduct a self-assessment of each individual filter.

(G) 2.0 NTU for two consecutive months	1. The supplier shall arrange with the Department for the conduct of a CPE pursuant to "Optimizing Water Treatment Plant Performance Using the Composite Correction Program," EPA Handbook, Chapter 4, pg. 21-65, Office of Research and Development, USEPA, EPA/625/6-91/027 (revised August 1998), which is incorporated by reference; 2. If a supplier serves 10,000 or more persons, the CPE shall be conducted no later than 30 days following the exceedance; and 3. If a supplier serves fewer than 10,000 persons, the CPE shall be conducted no later than 60 days following the exceedance. If a CPE was completed within the prior 12 months or the supplier and Department are jointly participating in an ongoing comprehensive technical assistance project at the water system, a new CPE is not required.

(a) For a supplier monitoring pursuant to footnote (c) of table 64655, the individual filter turbidity performance triggers of table 64660 shall apply to the combined filter effluent.

(8) Pressure filters shall be physically inspected and evaluated annually for such factors as media condition, mudball formation, and short circuiting. A written record of the inspection shall be maintained at the treatment plant~~.~~; and

(9) Coagulation and flocculation unit processes shall be in use at all times during which conventional and direct filtration treatment plants are in operation. The effectiveness of these processes shall be demonstrated by either at least an 80 percent reduction through the filters of the monthly average raw water turbidity or jar testing, pilot testing, or other means to demonstrate that optimum coagulation is being achieved.

~~(10) The filtered water turbidity level from each filter unit shall be monitored with a continuous turbidity meter and recorder, or with a grab sampling program designed to identify compliance with the requirements of paragraph (b)(7) and approved by the Department. If this monitoring indicates that any filter unit in a conventional or direct filtration plant is not performing as required in paragraph (b)(7), the filter shall be taken out of service and inspected to determine the cause of its inadequate performance. The filter unit shall not be returned to service until deficiencies have been corrected and operations tests demonstrate that the filter unit is meeting the requirements of paragraph (b)(7).~~

(c) Disinfection facilities shall be operated in accordance with the following requirements:

(1) A supply of chemicals necessary to provide continuous operation of disinfection facilities shall be maintained as a reserve or demonstrated to be available~~.~~; and

(2) An emergency plan shall be developed prior to initiating operation of the disinfection facilities. The plan shall be implemented in the event of disinfection failure to prevent delivery to the distribution system of any undisinfected or inadequately disinfected water. The plan shall be posted in the treatment plant or other place readily accessible to the plant operator.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 106885, ~~116270, 116275,~~ 116350, ~~116365,~~ 116375, 116385, ~~116390, 116400,~~ 116460~~, 116525, 116530, 116535, 116540, 116550,~~ 116555~~, 116625,~~ and 116735~~ and 131051~~, Health and Safety Code.

(25) Amend Section 64662 as follows:

§ 64662. Records.

(a) ~~The~~A supplier shall maintain accurate and complete operation records for each treatment plant that treats an approved surface water. The records shall include but not be limited to the following:

(1) The results of all monitoring conducted in accordance with sections 64654.8, 64655, 64656, 64656.5, ~~64657.20, 64657.40, 64657.50,~~ and 64660~~.~~;

(2) Dates on which filter maintenance and inspections were performed and the results of any inspections including pressure filter evaluations required by section 64660(b)(~~7~~8)~~.~~;

(3) Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates~~.~~; and

(4) Dates and description of major equipment and process failures and corrective actions taken.

(b) Treatment plant records shall be retained for not less than three years, except where the Department has determined that longer retention times are necessary to complete legal actions taken under the provisions of Health and Safety Code sections 116625 through 116675 and sections 116725 through 116730.

(c) A supplier using conventional or direct filtration treatment and serving fewer than 10,000 persons shall retain treatment plant records required pursuant to section 64656.5 indefinitely.

(d) A supplier shall comply with the recordkeeping requirements specified in section 64650(f)(1).

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, ~~116365,~~ and 116375~~, 116385, 116390, 116400, 116450, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051~~, Health and Safety Code.

ARTICLE 6. REPORTING

(26) Amend Section 64663 as follows:

§ 64663. Department Notification.

~~The~~A supplier shall notify the Department as soon as possible, but no later than by the end of the next business day, or within 24 hours, whichever is less, by telephone or other equally rapid means whenever:

~~(a) The turbidity of the combined filter effluent as monitored pursuant to section 64655 or 64657.40 exceeds 5.0 NTU at any time.~~

~~(b) More than two consecutive turbidity samples of the combined filter effluent taken every four hours pursuant to section 64655 exceed 1.0 NTU or samples collected pursuant to section 64657.40 exceed 1 NTU for more than 1 continuous hour, 1 NTU at 4-hour intervals, or 1.0 NTU for more than 8 consecutive hours.~~

(a) A combined filter effluent turbidity exceedance occurs pursuant to table 64663:

Table 64663

Combined Filter Effluent Turbidity Exceedances

Requiring Department Notification

If a supplier uses…	*And the turbidity of the combined filter effluent monitored and recorded pursuant to section 64655 …*
(1) Any filtration technology pursuant to section 64653	Exceeds 5.0 NTU at any time.

(2) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Exceeds 1 NTU for more than one continuous hour; (B) Exceeds 1 NTU at four-hour intervals; or (C) Exceeds 1.0 NTU for more than eight consecutive hours.
(3) Conventional or direct filtration treatment and serves fewer than 10,000 persons	(A) For a supplier using a grab sample monitoring program: 1. Exceeds 1 NTU; or 2. Exceeds 1.0 NTU in more than two consecutive samples taken every four hours; and (B) For a supplier using a continuous monitoring program: 1. If recording results at least once every 15 minutes, equals paragraph (2)(A); or 2. Equals paragraph (2)(B) or (2)(C).
(4) Diatomaceous earth or slow sand filtration	Exceeds 1.0 NTU in more than two consecutive samples taken every four hours.
(5) An alternative filtration technology pursuant to section 64653	Exceeds the maximum performance standard established pursuant to sections 64653(e), (f), (g), and (h).

(~~c~~b) There is a failure to maintain a minimum disinfectant residual of 0.2 mg/~~l~~L in the water being delivered to the distribution system. The supplier shall report whether or not the disinfectant residual was restored to at least 0.2 mg/~~l~~L within four hours.

(~~d~~c) An event occurs which may affect the ability of the treatment plant to produce a safe, potable water including but not limited to spills of hazardous materials in the watershed and unit treatment process failures.

(~~e~~d) For a supplier avoiding filtration, ~~T~~the turbidity immediately prior to the first or only point of disinfectant application exceeds 5 NTU ~~for suppliers avoiding filtration~~.

(~~f~~e) ~~The~~A supplier discovers the occurrence of an acute infectious illness that may be potentially attributable to the water system.

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, ~~116450,~~ 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, ~~116365,~~ 116375, ~~116385, 116390, 116400,~~ 116450~~,~~ and 116460~~, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735, 116750 and 131051~~, Health and Safety Code.

(27) Amend Section 64664 as follows:

§ 64664. Monthly Report.

(a) ~~Each supplier with an approved surface water treatment facility shall submit a monthly report on the operation of each facility to the Department by the tenth day of the following month.~~For each calendar month, a supplier shall submit a report to the Department by the tenth day of the following month that includes the applicable information in this section for each treatment plant. The report shall be signed by the chief water treatment plant operator, plant superintendent, or other person directly responsible for the operation of the water treatment plant.

(b) The report shall include the following ~~results of turbidity monitoring of the combined filter effluent~~filtration monitoring results, obtained pursuant to section 64655, and related information:

~~(1) All turbidity measurements taken during the month to determine compliance with section 64653.~~

~~(2) The number and percent of turbidity measurements taken during the month which are less than or equal to the performance standard specified for each filtration technology in section 64653, or as required for an alternative treatment process. The report shall also include the date and value of any turbidity measurements that exceed performance levels specified in section 64653.~~

~~(3) The average daily turbidity level.~~

~~(4) If the turbidity level of the filter effluent from a slow sand filter is greater than 1.0 NTU in five percent or more of the measurements taken that month, the supplier must also report the dates and results of total coliform sampling of the filter effluent prior to disinfection to demonstrate compliance with section 64653(d)(1).$~~

Table 64664-A

Combined Filter Effluent Data for Monthly Report

If a supplier uses…	*The supplier shall report…*
(1) Conventional or direct filtration treatment and serves 10,000 or more persons[(a)]	The total number of turbidity measurements and either: (A) The turbidity achieved 50, 90, 95, 98, and 99 percent of the time that the plant was producing water; and the date, time, and value of any turbidity measurements that exceed 1.0 NTU; or (B) The results of turbidity measurements recorded at intervals no greater than every four hours; all results that exceed 0.3 NTU, recorded at intervals no greater than every 15 minutes; and the number and percent of turbidity measurements that are less than or equal to 0.3 NTU, based on measurements recorded at intervals no greater than every 15 minutes.
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons[(b)], diatomaceous earth filtration, slow sand	(A) The total number of turbidity measurements; (B) The results of turbidity measurements; (C) The number and percent of turbidity measurements taken that are less than or equal to the performance standard specified for each filtration technology in section 64653 or as required for an alternative treatment process;

filtration[c], or an alternative filtration technology	(D) The date, time, and value of any turbidity measurements that exceed performance levels specified in section 64653 or as required for an alternative treatment process; and (E) The average daily turbidity level.

(a) A supplier shall review the data reported to ensure that it is not compromised by system or instrument maintenance, hardware or software problems, signal transmission problems, or for other technical reasons.

(b) A supplier monitoring pursuant to footnote (c) of table 64655 may report pursuant to paragraph (1)(A) in lieu of paragraphs (2)(B) through (2)(E).

(c) If the turbidity of the combined filter effluent is greater than 1.0 NTU in five percent or more of the measurements, a supplier shall also report the dates and results of total coliform sampling of the combined filter effluent prior to disinfection to demonstrate compliance with paragraph (4)(A) of table 64653.

Table 64664-B

Individual Filter Data for Monthly Report

If a supplier uses…	*The supplier shall include…*
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Certification that individual filter turbidity monitoring was conducted pursuant to section 64655; (B) For an exceedance of section 64660(b)(7)(A), (b)(7)(B), or (b)(7)(C), a written explanation of the cause of the exceedance; (C) For an exceedance of section 64660(b)(7)(D) or (b)(7)(E), the filter number, turbidity measurements, and date(s) and time(s) of the exceedance(s); and either: 1. The obvious reason for the exceedance; or 2. If the supplier is not able to identify an obvious reason for the abnormal filter performance, the filter profile produced pursuant to table 64660; and (D) For an exceedance of section 64660(b)(7)(F), certification that a self-assessment was conducted pursuant to table 64660.

(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons	(A) The information in paragraphs (1)(A) and (1)(B); (B) For an exceedance of section 64660(b)(7)(D) or (b)(7)(E), the filter number, turbidity measurements, date(s) and time(s) of the exceedance(s); and, if known, the obvious reason for the exceedance. (C) For an exceedance of section 64660(b)(7)(F), the date the self-assessment was triggered and completed. If the self-assessment was triggered during the last four days of the month, the supplier may report to the Department by the 14th of the following month the date the self-assessment was triggered and completed; and (D) For an exceedance of section 64660(b)(7)(G), certification that the CPE is required and the date it was triggered.

(c) The report shall include the following disinfection monitoring results ~~taken~~ obtained pursuant to section 64656~~to comply with section 64654~~:

(1) The date and duration of each instance when the disinfectant residual in water supplied to the distribution system is less than 0.2 mg/~~l~~L and when the Department was notified of the occurrence~~.~~;

(2) The following information on samples taken from the distribution system to comply with section 64654(b)(2):

(A) The number of samples where the disinfectant residual is measured~~.~~;

(B) The number of samples where only the heterotrophic plate count (HPC) is measured~~.~~;

(C) The number of measurements with no detectable disinfectant residual and no HPC is measured~~.~~;

(D) The number of measurements with no detectable disinfectant residual and HPC is greater than 500 colony forming units per milliliter~~.~~;

(E) The number of measurements where only HPC is measured and is greater than 500 colony forming units per milliliter~~.~~; and

(F) The value of V in the following formula:

$$V = \left[1 - \frac{(C + D + E)}{A + B}\right] \times 100$$

Where V = the percent of distribution system samples with a detectable residual~~.~~,

A = the value in paragraph (2)(A) of this subsection~~.~~,

B = the value in paragraph (2)(B) of this subsection~~.~~,

C = the value in paragraph (2)(C) of this subsection~~.~~,

D = the value in paragraph (2)(D) of this subsection~~.~~, and

E = the value in paragraph (2)(E) of this subsection~~.~~, and

(3) For each day the lowest measurement of residual disinfectant concentration in mg/~~l~~L in the water entering the distribution system.

(d) The report shall include the following ~~raw water and process water data~~raw, settled, and recycled filter backwash monitoring results obtained pursuant to section 64654.8:

(1) All raw water turbidity measurements taken during the month~~ pursuant to section 64655(a)~~. If more than one sample is taken each day, the highest value of all samples taken that day may be reported in lieu of reporting all that day's values~~.~~;

(2) All raw water coliform measurements taken during the month~~ pursuant to section 64655(b).~~;

(3) Daily settled water turbidity for each day of the month~~, measured pursuant to section 64655(c)~~. If more than one sample is taken each day, the highest value of all samples taken that day may be reported in lieu of reporting all that day's values~~.~~; and

(4) Daily recycled water turbidity and flow for each day of the month that backwash water was recycled back into the treatment process~~, measured pursuant to section 64655(d)~~. If more than one turbidity sample (or flow measurement) is taken each day, the highest value of all turbidity samples (or flow measurements) taken that day may be reported in lieu of reporting all that day's values.

(e) The report shall include a written explanation of the cause of any violation of performance standards specified in section~~s~~ 64653~~,~~ or 64654~~, or 64657.30~~ and operating criteria specified in section~~s~~ 64660(b)~~(7) and~~ (9).

(f) The report shall include a summary of water quality complaints and reports of gastrointestinal illness received from consumers.

(g) ~~If a supplier provides conventional filtration or direct filtration and serves at least 10,000 people, the report shall include the information required by sections 64657.50(a) and (c).~~The report shall include the monthly reporting specified in section 64650(f)(1).

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, ~~116450 and~~ 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350 ~~116365,~~ and 116375~~, 116385, 116390, 116400, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051~~, Health and Safety Code.

(28) Adopt Section 64664.2 as follows:

§ 64664.2. Supplemental Reports.

(a) A supplier shall submit supplemental reports to the Department in accordance with table 64644.2:

Table 64664.2

Supplemental Reports

If a supplier uses…	*The supplier shall submit…*
(1) Conventional or direct filtration treatment and serves 10,000 or more persons	(A) Within 28 days of the exceedance of section 64660(b)(7)(F), the filter self-assessment report prepared pursuant to table 64660; and (B) Within 90 days of the exceedance of section 64660(b)(7)(G), the CPE prepared pursuant to table 64660.
(2) Conventional or direct filtration treatment and serves fewer than 10,000 persons	Within 120 days of the exceedance of section 64660(b)(7)(G), the CPE prepared pursuant to table 64660.

(b) A supplier shall comply with the supplemental reporting requirements specified in section 64650(f).

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

ARTICLE 7. ~~WATERSHED~~ SANITARY SURVEYS

(29) Adopt Section 64665.5 as follows:

§ 64665.5. Additional Requirements.

A supplier shall comply with the sanitary survey requirements specified in section 64650(f)(1).

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

ARTICLE 8. PUBLIC NOTIFICATION

(30) Amend Section 64666 as follows:

§ 64666. Consumer Notification.

(a) For water systems that filter approved surface water, the supplier shall notify persons served by the system whenever there is a failure to comply with any of the treatment requirements specified in sections 64652, 64653, 64653.5(b), and 64654(a) or performance standards specified in sections 64653(c)~~(1), (d),~~ and (h)~~,~~ and 64654(b)~~, and 64657.30(a)(2) and (b)~~.

(b) For water systems that do not filter approved surface water, the supplier shall notify persons served by the system whenever:

(1) There is a failure to comply with sections 64652.5(b) through (k), sections 64652 and 64654(a), or section 64654(b);

(2) The turbidity level in a representative sample of the approved surface water immediately prior to the first or only point of disinfectant application exceeds 5 NTU; or

(3) The unfiltered approved surface water has been identified as a source of waterborne microbial disease outbreak.

(c) The notification required by either subsections (a) or (b) shall be given in accordance with section 64463.1 or 64463.4, as required.

(d) For water systems that filter approved surface water, the supplier shall notify persons served by the system whenever there is a failure to comply with the monitoring requirements specified in section~~s~~ 64655~~,~~ or 64656~~, or 64657.40~~. The notification shall be given in accordance with section 64463.7.

(e) For water systems that do not filter approved surface water, the supplier shall notify persons served by the system whenever there is a failure to comply with the

monitoring requirements specified in section~~s~~ 64652.5(b), (d), or (e), or 64656. The notification shall be given in accordance with section 64463.7.

(f) If a supplier is unable to remove a source from service pursuant to section 64652.5(l), the supplier shall notify the Department immediately, and notify persons served by the system pursuant to section 64463.1.

(g) A supplier shall comply with the public notification and special notice requirements of section 64650(f)(1).

NOTE: Authority cited: Sections ~~100275,~~ 116350, 116375, ~~116450 and~~ 131052 and 131200, Health and Safety Code. Reference: Sections ~~116270, 116275,~~ 116350, ~~116365,~~ 116375, ~~116385, 116390, 116400,~~ 116450~~,~~ and 116460~~, 116525, 116530, 116535, 116540, 116550, 116555, 116625, 116735 and 131051~~, Health and Safety Code.