



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

July 1, 2016
System No.: 1500349

Mr. Gene Borel, President
Stockdale Mutual Water Company
P. O. Box 788
Bakersfield, CA 93302

**RE: Citation No. 03_12_16C_017
Total Coliform Maximum Contaminant Level Violation
For May 2016**

Dear Mr. Borel:

Enclosed is a Citation issued to the Stockdale Mutual Water Company (hereinafter "Water System") public water system for noncompliance with the total coliform maximum contaminant level (MCL).

The Water System will be billed at the State Water Resources Control Board's (hereinafter "State Board") hourly rate (currently estimated at \$153.00) for the time spent on issuance of this citation. The California Health and Safety Code Section 116577 provides that a public water system must reimburse the State Board for actual costs incurred by the State Board for specified enforcement actions, including but not limited to, preparing, issuing and monitoring compliance with a citation.

The Water System will receive a bill sent from the State Board in August of the next fiscal year. This bill will contain fees for any enforcement time spent on Water System for the current fiscal year. If you have any questions regarding this matter, please contact Mrs. Linda Ramirez of my staff or me at (559) 447-3300.

Sincerely,

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

TAW/LR

Enclosures

Certified Mail No. 7015 1660 0000 0781 8220

cc: Kern County Environmental Health Department
Seaco Technologies, 3220 Patton Way, Bakersfield, CA 93308

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

Name of Public Water System: Stockdale Mutual Water Company

Water System No: 1500349

Attention: Mr. Gene Borel, President

P. O. Box 788

Bakersfield, CA 93302

Issued: July 1, 2016

CITATION FOR NONCOMPLIANCE
TOTAL COLIFORM MAXIMUM CONTAMINANT LEVEL VIOLATION
CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64426.1
May 2016

The California Health and Safety Code (hereinafter "CHSC"), Section 116650 authorizes the State Water Resources Control Board (hereinafter "State Board") to issue a citation to a public water system when the State Board determines that the public water system has violated or is violating the California Safe Drinking Water Act (hereinafter "California SDWA"), (CHSC, Division 104, Part 12, Chapter 4, commencing with Section 116270), or any regulation, standard, permit, or order issued or adopted thereunder.

1 The State Board, acting by and through its Division of Drinking Water (hereinafter "Division")
2 and the Deputy Director for the Division, hereby issues this citation pursuant to Section 116650
3 of the CHSC to the Stockdale Mutual Water Company (hereinafter "Water System") for
4 violation of CHSC, Section 116555(a)(1) and California Code of Regulations (hereinafter
5 "CCR"), Title 22, Section 64426.1.

6
7 A copy of the applicable statutes and regulations are included in Appendix 1, which is attached
8 hereto and incorporated by reference.

9
10 **STATEMENT OF FACTS**

11 The Water System is classified as a community water system with a population of
12 approximately 200 persons served through 81 service connections. The Water System is
13 required to collect a minimum of one (1) distribution system bacteriological sample per month.
14 The Division received laboratory results for seven (7) bacteriological samples collected during
15 May 2016 from the Water System. All samples were analyzed for the presence of total coliform
16 bacteria. Four (4) of the seven (7) samples analyzed were positive for total coliform bacteria.
17 None of the total coliform positive samples showed the presence of *Escherichia coli* (*E. coli*)
18 bacteria.

19
20 In addition, the Water System also failed the Total Coliform Maximum Contaminant Level
21 (MCL) for the months of September and October 2015 and February 2016. All water samples
22 for coliform bacteria are summarized in Appendix 2.

23
24 **DETERMINATION**

25 CCR, Title 22, Section 64426.1, Total Coliform Maximum Contaminant Level (MCL) states that
26 a public water system is in violation of the total coliform MCL if it collects fewer than 40
27 bacteriological samples per month and if more than one sample collected during any month is
28 total coliform-positive.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

The Water System took fewer than 40 bacteriological samples during May 2016. The results of four (4) were positive for total coliform bacteria. Therefore, the Division has determined that the Water System violated CCR, Title 22, Section 64426.1 during May 2016.

DIRECTIVES

The Water System is hereby directed to take the following actions:

1. Comply with CCR, Title 22, Section 64426.1, in all future monitoring periods.
2. On or before **July 20, 2016** notify all persons served by the Water System of the violation of Section 64426.1, in conformance with CCR, Title 22, Sections 64463.4(b)&(c) and 64465. Copies of Sections 64463.4 and 64465 are included in Appendix 1. Appendix 4: Notification Template shall be used to fulfill this directive, unless otherwise approved by the Division.
3. Complete Appendix 5: Proof of Notification Form. Submit it together with a copy of the public notification to the Division on or before **July 30, 2016**.
4. Submit the information required by CCR, Title 22, Section 64426(b)(2) on or before **July 30, 2016**. Appendix 6: Positive Total Coliform Investigation may be used to fulfill this directive.
5. By **July 30, 2016**, continuous chlorination equipment shall be installed on the discharge of all wells. Information regarding the permanent chlorination equipment and installation procedures shall be submitted to the Division for review. The installation shall be conducted by a person qualified and experienced with chlorination equipment.

- 1 6. The Water System shall have on staff or under contract a minimum of a D1 Certified
2 Distribution Operator to operate the chlorination equipment. The well site and
3 chlorination treatment shall be visited and inspected on at least a weekly basis.
4 Documentation should be maintained to include the date and time of the visit, the
5 settings on the chemical feed equipment, the chlorine stock on hand and the chlorine
6 residual at the well site and in the farthest part of the distribution system.
7 Documentation of the site visits shall be submitted to the Division by the 10th day of the
8 following month.
9
- 10 7. By **August 15, 2016**, the Water System shall prepare and submit a Chlorination
11 Operations Plan to the Division for review. Guidance for the preparation of the plan is
12 provided in Appendix 7.
13
- 14 8. The chlorine residual shall be measured at the time and location of the collection of the
15 monthly distribution system bacteriological samples. This residual shall be provided to
16 the Division on the laboratory analysis report.
17
- 18 9. By **July 30, 2016**, the Water System shall make application to the Division for a permit
19 to allow the continuous chlorination of the water supply. Form EH 100 (Appendix 8)
20 shall be used to make application. A permit fee of \$258 shall be included at the time
21 the application is submitted to the Division.
22
- 23 10. The Water System shall initiate monthly sampling of the raw well water for coliform
24 bacteria. The sample must be collected at a location ahead of chlorination and shall be
25 analyzed for total and fecal coliform or *E. coli* bacteria using a density analytical method
26 with the analytical results reported in MPN/100 ml. The results of all samples shall be
27 submitted to the Division by the 10th day of the following month.

11. The Water System shall initiate distribution sampling for **TTHM and HAA5** on an **annual basis starting in the summer of 2016**. The Stage 2 DBP Monitoring Plan Form provided as Appendix 9, shall be completed and submitted to the Division **by August 15, 2016**. The sample(s) must be collected during the month of warmest water temperature (July, August or September) from a location representing the maximum residence time in the distribution system. If the annual sample(s) exceeds the MCL, the monitoring frequency will be increased to 1 sample per quarter. The Water System must notify the Division if an exceedance of the TTHM, HAA5 MCLs or Chlorine Disinfectant MRDL (maximum residual disinfectant level) of 4.0 mg/L occurs. These levels are listed below.

<u>Contaminant</u>	<u>MCL</u>
Total Trihalomethane (TTHM)	0.080 mg/L
Haloacetic Acids (HAA5)	0.060 mg/L
	<u>MRDL</u>
Chlorine	4.0 mg/L as Cl ₂

All submittals required by this Citation shall be submitted to the Division at the following address:

Tricia Wathen, P.E., Senior Sanitary Engineer
 State Water Resources Control Board
 Division of Drinking Water, Visalia District
 265 W. Bullard Ave, Suite 101
 Fresno, CA 93704

1 The State Board reserves the right to make such modifications to this Citation as it may deem
2 necessary to protect public health and safety. Such modifications may be issued as
3 amendments to this Citation and shall be effective upon issuance.

4

5 Nothing in this Citation relieves the Water System of its obligation to meet the requirements of
6 the California SDWA (CHSC, Division 104, Part 12, Chapter 4, commencing with Section
7 116270), or any regulation, standard, permit or order issued or adopted thereunder.

8

9

PARTIES BOUND

10 This Citation shall apply to and be binding upon the Water System, its owners, shareholders,
11 officers, directors, agents, employees, contractors, successors, and assignees.

12

13

SEVERABILITY

14 The directives of this Citation are severable, and the Water System shall comply with each and
15 every provision thereof notwithstanding the effectiveness of any provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the State Board to: issue a citation with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any regulation, permit, standard, citation, or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the State Board to take action to suspend or revoke a permit that has been issued to a public water system if the public water system has violated applicable law or regulations or has failed to comply with an order of the State Board, and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with an order of the State Board. The State Board does not waive any further enforcement action by issuance of this Citation.

Tricia Wathen

July 1, 2017

Tricia Wathen, P.E.
Senior Sanitary Engineer, Visalia District
DRINKING WATER FIELD OPERATIONS BRANCH

Date



TAW/LR

Appendices (9):

1. Applicable Statutes and Regulations
2. Summary of Distribution Bacteriological Samples
3. Summary of Source Bacteriological Samples
4. Notification Template
5. Proof of Notification Form
6. Positive Total Coliform Investigation Report Form
7. Chlorination Operations Plan Guide
8. Permit Application
9. ST2 Monitoring Plan form

Certified Mail No. 7015 1660 0000 0781 8220

APPENDIX 1. APPLICABLE STATUTES AND REGULATIONS FOR

Violations of Total Coliform Rule

California Health and Safety Code (CHSC):

Section 116271 states in relevant part:

(a) The State Water Resources Control Board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:

- (1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).
- (2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.
- (3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.
- (4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).
- (5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.
- (6) Chapter 7 (commencing with Section 116975).
- (7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).
- (8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).
- (9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.
- (10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).
- (11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).
- (12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).

(b) The State Water Resources Control Board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to "department," "state department," or "director" regarding a function transferred to the State Water Resources Control Board shall refer to the State Water Resources Control Board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500...

- (k)
- (1) The State Water Resources Control Board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.
 - (2) The deputy director is delegated the State Water Resources Control Board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken, but are not subject to reconsideration, by the State Water Resources Control Board. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the State Water Resources Control Board, but any aggrieved person may petition the State Water Resources Control Board for reconsideration of the decision or action. This subdivision is not a limitation on the State Water Resources Control Board's authority to delegate any other powers and duties.

Section 116555 states in relevant part:

(a) Any person who owns a public water system shall ensure that the system does all of the following:

- (1) Complies with primary and secondary drinking water standards.
- (2) Will not be subject to backflow under normal operating conditions.
- (3) Provides a reliable and adequate supply of pure, wholesome, healthful, and potable water.

Section 116650 states in relevant part:

(a) If the department determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the department may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.

(b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.

(c) A citation may specify a date for elimination or correction of the condition constituting the violation.

- (d) A citation may include the assessment of a penalty as specified in subdivision (e).
- (e) The department may assess a penalty in an amount not to exceed one thousand dollars (\$1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation.

California Code of Regulations, Title 22 (CCR):

Section 64421 (General Requirements) states:

- (a) Each water supplier shall:
- (1) Develop a routine sample siting plan as required in section 64422;
 - (2) Collect routine, repeat and replacement samples as required in Sections 64423, 64424, and 64425;
 - (3) Have all samples analyzed by laboratories approved to perform those analyses by the State Board and report results as required in section 64423.1;
 - (4) Notify the State Board when there is an increase in coliform bacteria in bacteriological samples as required in section 64426; and
 - (5) Comply with the Maximum Contaminant Level as required in section 64426.1.
- (b) Water suppliers shall perform additional bacteriological monitoring as follows:
- (1) After construction or repair of wells;
 - (2) After main installation or repair;
 - (3) After construction, repair, or maintenance of storage facilities; and
 - (4) After any system pressure loss to less than five psi. Samples collected shall represent the water quality in the affected portions of the system.

Section 64422 (Routine Sample Siting Plan) states:

- (a) By September 1, 1992, each water supplier shall develop and submit to the State Board a siting plan for the routine collection of samples for total coliform analysis, subject to the following:
- (1) The sample sites chosen shall be representative of water throughout the distribution system including all pressure zones, and areas supplied by each water source and distribution reservoir.
 - (2) The water supplier may rotate sampling among the sample sites if the total number of sites needed to comply with (a)(1) above exceeds the number of samples required according to Table 64423-A. The rotation plan shall be described in the sample siting plan.
- (b) If personnel other than certified operators will be performing field tests and/or collecting samples, the sample siting plan shall include a declaration that such personnel have been trained, pursuant to §64415 (b).
- (c) The supplier shall submit an updated plan to the State Board at least once every ten years and at any time the plan no longer ensures representative monitoring of the system.

Section 64423 (Routine Sampling) states:

- (a) Each water supplier 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. A community water system using groundwater which serves 25-1000 persons may request from the State Board a reduction in monitoring frequency. The minimum reduced frequency shall not be less than one sample per quarter.
 - (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. A nontransient-noncommunity water system using groundwater which serves 25-1000 persons may request from the State Board a reduction in monitoring frequency if it has not violated the requirements in this article during the past twelve months. The minimum reduced frequency shall not be less than one sample per quarter.
 - (3) The minimum number of samples for transient-noncommunity water systems using groundwater 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 and serving more than 1000 persons during any month shall be based on the known population served as shown in Table 64423-A, except that the water supplier may request from the State Board a reduction in monitoring for any month the system serves 1000 persons or fewer. The minimum reduced frequency shall not be less than one sample in each calendar quarter during which the system provides water to the public.
 - (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) A public water system shall collect samples at regular time intervals throughout the month, except that a system using groundwater which serves 4,900 persons or fewer may collect all required samples on a single day if they are taken from different sites.

(b) In addition to the minimum sampling requirements, all water suppliers using approved surface water which do not practice treatment 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 water delivered to the system exceeds 1 NTU. The sample shall be collected within 24 hours of the exceedance and shall be analyzed for total coliforms. If the water supplier is unable to collect and/or analyze the sample within the 24-hour time period because of extenuating circumstances beyond its control, the supplier shall notify the State Board within the 24-hour time period and may request an extension. Sample results shall be included in determining compliance with the MCL for total coliforms in Section 64426.1.

(c) If any routine, repeat, or replacement sample is total coliform-positive, then the water supplier shall collect repeat samples in accordance with Section 64424 and comply with the reporting requirements specified in Sections 64426 and 64426.1.

Table 64423-A
Minimum Number of Routine Total Coliform Samples

Monthly Population Served	Service Connections	Minimum Number of Samples
25 to 1000	15 to 400	1 per month
1,001 to 2,500	401 to 890	2 per month
2,501 to 3,300	891 to 1,180	3 per month
3,301 to 4,100	1,181 to 1,460	4 per month
4,101 to 4,900	1,461 to 1,750	5 per month
4,901 to 5,800	1,751 to 2,100	6 per month
5,801 to 6,700	2,101 to 2,400	7 per month
6,701 to 7,600	2,401 to 2,700	2 per week
7,601 to 12,900	2,701 to 4,600	3 per week
12,901 to 17,200	4,601 to 6,100	4 per week
17,201 to 21,500	6,101 to 7,700	5 per week
21,501 to 25,000	7,701 to 8,900	6 per week
25,001 to 33,000	8,901 to 11,800	8 per week
33,001 to 41,000	11,801 to 14,600	10 per week
41,001 to 50,000	14,601 to 17,900	12 per week
50,001 to 59,000	17,901 to 21,100	15 per week
59,001 to 70,000	21,101 to 25,000	18 per week
70,001 to 83,000	25,001 to 29,600	20 per week
83,001 to 96,000	29,601 to 34,300	23 per week
96,001 to 130,000	34,301 to 46,400	25 per week
130,001 to 220,000	46,401 to 78,600	30 per week
220,001 to 320,000	78,601 to 114,300	38 per week
320,001 to 450,000	114,301 to 160,700	50 per week
450,001 to 600,000	160,701 to 214,300	55 per week
600,001 to 780,000	214,301 to 278,600	60 per week
780,001 to 970,000	278,601 to 346,400	70 per week
970,001 to 1,230,000	346,401 to 439,300	75 per week
1,230,001 to 1,520,000	439,301 to 542,900	85 per week
1,520,001 to 1,850,000	542,901 to 660,700	90 per week
1,850,001 to 2,270,000	660,701 to 810,700	98 per week
2,270,001 to 3,020,000	810,701 to 1,078,600	105 per week
3,020,001 to 3,960,000	1,078,601 to 1,414,300	110 per week
3,960,001 or more	1,414,301 or more	120 per week

Section 64423.1 (Sample Analysis and Reporting of Results) states:

(a) The water supplier 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 supplier also shall require the laboratory to analyze the same sample for fecal coliforms or *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 or fecal coliforms, or *E. coli* in the sample, whichever is appropriate.

(b) The water supplier shall require the laboratory to notify the supplier within 24 hours, whenever the presence of total coliforms, fecal coliforms or *E. coli* is demonstrated in a sample or a sample is invalidated due to interference problems, pursuant to Section 64425(b), and shall ensure that a contact person is available to receive these analytical results 24-hours a day. The water supplier 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 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) The water supplier shall submit a monthly summary of the bacteriological monitoring results to the State Board.
- (2) For systems serving fewer than 10,000 service connections or 33,000 persons, the water supplier shall require the laboratory to submit copies of all required bacteriological monitoring results directly to the State Board.

(3) For systems serving more than 10,000 service connections, or 33,000 persons, the water supplier 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) Laboratory reports shall be retained by the water supplier for a period of at least five years and shall be made available to the State Board upon request.

Section 64424 (Repeat Sampling) states in relevant part:

(a) If a routine sample is total coliform-positive, the water supplier 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 request that the State Board allow the collection of the repeat sample set over a four-day period.

(1) For a water supplier that normally collects more than one routine sample a month, a repeat sample set shall be at least three samples for each total coliform-positive sample. For a water supplier that normally collects one or fewer samples per month, a repeat sample set shall be at least four samples for each total coliform-positive sample.

(2) If the water supplier 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 water supplier shall notify the State Board within 24 hours. The State Board will then determine how much time the supplier will have to collect the repeat samples.

(b) When collecting the repeat sample set, the water supplier 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.

(c) If one or more samples in the repeat sample set is total coliform-positive, the water supplier shall collect and have analyzed an additional set of repeat samples as specified in subsections (a) and (b). The supplier shall repeat this process until either no coliforms are detected in one complete repeat sample set or the supplier determines that the MCL for total coliforms specified in Section 64426.1 has been exceeded and notifies the State Board.

(d) If a public water system for which fewer than five routine samples/month are collected has one or more total coliform-positive samples, the water supplier shall collect at least five routine samples the following month. If the supplier stops supplying water during the month after the total coliform-positive(s), at least five samples shall be collected during the first month the system resumes operation. A water supplier may request the State Board waive the requirement to collect at least five routine samples the following month, but a waiver will not be granted solely on the basis that all repeat samples are total coliform-negative. To request a waiver, one of the following conditions shall be met:

(1) The State Board conducts a site visit before the end of the next month the system provides water to the public to determine whether additional monitoring and/or corrective action is necessary to protect public health.

(2) The State Board determines why the sample was total coliform-positive and establishes that the system has corrected the problem or will correct the problem before the end of the next month the system serves water to the public. If a waiver is granted, a system shall collect at least one routine sample before the end of the next month it serves water to the public and use it to determine compliance with Section 64426.1.

Section 64425 (Sample Invalidation) states:

(a) A water supplier may request the Department to invalidate a sample for which a total coliform-positive result has been reported if the supplier demonstrates:

(1) All repeat sample(s) collected at the same tap as the original total coliform-positive 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 §64415(a), based on a review of laboratory documentation by the Department. The supplier shall submit to the Department a written request for invalidation along with the laboratory documentation, the supplier's sample collection records and any observations noted during sample collection and delivery. The water supplier shall require the laboratory to provide the supplier 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 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 141.2100(c)(2), the supplier 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 supplier shall continue to re-sample at the original site within 24 hours and have the samples analyzed until a valid result is obtained.

Section 64426 (Significant Rise in Bacterial Count) states in relevant part:

- (a) Any of the following criteria shall indicate a possible significant rise in bacterial count:
- (1) A 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 system has a sample which is positive for fecal coliform or E. coli; or
 - (3) A system fails the total coliform Maximum Contaminant Level (MCL) as defined in Section 64426.1.
- (b) When the coliform levels specified in subsection (a) are reached or exceeded, the water supplier shall:
- (1) Contact the State Board by the end of the day on which the system is notified of the test result or the system determines that it has exceeded the MCL, unless the notification or determination occurs after the State Board office is closed, in which case the supplier shall notify the State Board within 24 hours; and
 - (2) 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) Physical 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.

Section 64426.1 (Total Coliform Maximum Contaminant Level (MCL)) states in relevant part:

- (b) A public water system is in violation of the total coliform MCL when any of the following occurs:
- (1) For a public water system which collects at least 40 samples per month, more than 5.0 percent of the samples collected during any month are total coliform-positive; or
 - (2) For a public water system which collects fewer than 40 samples per month, more than one sample collected during any month is total coliform-positive; or
 - (3) Any repeat sample is fecal coliform-positive or E. coli-positive; or
 - (4) Any repeat sample following a fecal coliform-positive or E. coli-positive routine sample is total coliform-positive.
- (c) If a public water system is not in compliance with paragraphs (b)(1) through (4), during any month in which it supplies water to the public, the water supplier shall notify the State Board by the end of the business day on which this is determined, unless the determination occurs after the State Board office is closed, in which case the supplier shall notify the State Board within 24 hours of the determination. The water supplier shall also notify the consumers served by the water system. A Tier 2 Public Notice shall be given for violations of paragraph (b)(1) or (2), pursuant to section 64463.4. A Tier 1 Public Notice shall be given for violations of paragraph (b)(3) or (4), pursuant to section 64463.1.

Section 64463.1 (Tier 1 Public Notice) states in relevant part:

- (a) A water system shall give public notice pursuant to this section and section 64465 if any of the following occurs:
- (1) Violation of the total coliform MCL when:
 - (A) Fecal coliform or E. coli are present in the distribution system; or
 - (B) When any repeat sample tests positive for coliform and the water system fails to test for fecal coliforms or E. coli in the repeat sample;...
- (b) As soon as possible within 24 hours after learning of any of the violations in subsection (a) or being notified by the State Board that it has determined there is a potential for adverse effects on human health [pursuant to paragraph (a)(4), (5), or (6)], the water system shall:
- (1) Give public notice pursuant to this section;
 - (2) Initiate consultation with the State Board within the same timeframe; and
 - (3) Comply with any additional public notice requirements that are determined by the consultation to be necessary to protect public health.
- (c) A water system shall deliver the public notice in a manner designed to reach residential, transient, and nontransient users of the water system and shall use, as a minimum, one of the following forms:
- (1) Radio or television;
 - (2) Posting in conspicuous locations throughout the area served by the water system;
 - (3) Hand delivery to persons served by the water system; or
 - (4) Other method approved by the State Board, based on the method's ability to inform water system users.

Section 64463.4 (Tier 2 Public Notice) states:

- (a) A water system shall give public notice pursuant to this section if any of the following occurs:
- (1) Any violation of the MCL, MRDL, and treatment technique requirements, except:
 - (A) Where a Tier 1 public notice is required under section 64463.1; or
 - (B) Where the State Board determines that a Tier 1 public notice is required, based on potential health impacts and persistence of the violations;

- (2) All violations of the monitoring and testing procedure requirements in sections 64421 through 64426.1, article 3 (Primary Standards – Bacteriological Quality), for which the State Board determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations;
- (3) Other violations of the monitoring and testing procedure requirements in this chapter, and chapters 15.5, 17 and 17.5, for which the State Board determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations; or
- (4) Failure to comply with the terms and conditions of any variance or exemption in place.
- (b) A water system shall give the notice as soon as possible within 30 days after it learns of a violation or occurrence specified in subsection (a), except that the water system may request an extension of up to 60 days for providing the notice. This extension would be subject to the State Board's written approval based on the violation or occurrence having been resolved and the State Board's determination that public health and welfare would in no way be adversely affected. In addition, the water system shall:
- (1) Maintain posted notices in place for as long as the violation or occurrence continues, but in no case less than seven days;
 - (2) Repeat the notice every three months as long as the violation or occurrence continues. Subject to the State Board's written approval based on its determination that public health would in no way be adversely affected, the water system may be allowed to notice less frequently but in no case less than once per year. No allowance for reduced frequency of notice shall be given in the case of a total coliform MCL violation or violation of a Chapter 17 treatment technique requirement; and
 - (3) For turbidity violations pursuant to sections 64652.5(c)(2) and 64653(c), (d) and (f), as applicable, a water system shall consult with the State Board as soon as possible within 24 hours after the water system learns of the violation to determine whether a Tier 1 public notice is required. If consultation does not take place within 24 hours, the water system shall give Tier 1 public notice within 48 hours after learning of the violation.
- (c) A water system shall deliver the notice, in a manner designed to reach persons served, within the required time period as follows:
- (1) Unless otherwise directed by the State Board in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, community water systems shall give public notice by:
 - (A) Mail or direct delivery to each customer receiving a bill including those that provide their drinking water to others (e.g., schools or school systems, apartment building owners, or large private employers), and other service connections to which water is delivered by the water system; and
 - (B) Use of one or more of the following methods to reach persons not likely to be reached by a mailing or direct delivery (renters, university students, nursing home patients, prison inmates, etc.):
 1. Publication in a local newspaper;
 2. Posting in conspicuous public places served by the water system, or on the Internet; or
 3. Delivery to community organizations.
 - (2) Unless otherwise directed by the State Board in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, noncommunity water systems shall give the public notice by:
 - (A) Posting in conspicuous locations throughout the area served by the water system; and
 - (B) Using one or more of the following methods to reach persons not likely to be reached by a public posting:
 1. Publication in a local newspaper or newsletter distributed to customers;
 2. E-mail message to employees or students;
 3. Posting on the Internet or intranet; or
 4. Direct delivery to each customer.

Section 64465 (Public Notice Content and Format) states in relevant part:

- (a) Each public notice given pursuant to this article, except Tier 3 public notices for variances and exemptions pursuant to subsection (b), shall contain the following:
- (1) A description of the violation or occurrence, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);
 - (2) The date(s) of the violation or occurrence;
 - (3) Any potential adverse health effects from the violation or occurrence, including the appropriate standard health effects language from appendices 64465-A through G;
 - (4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in drinking water;
 - (5) Whether alternative water supplies should be used;
 - (6) What actions consumers should take, including when they should seek medical help, if known;
 - (7) What the water system is doing to correct the violation or occurrence;
 - (8) When the water system expects to return to compliance or resolve the occurrence;
 - (9) The name, business address, and phone number of the water system owner, operator, or designee of the water system as a source of additional information concerning the public notice;
 - (10) A statement to encourage the public notice recipient to distribute the public notice to other persons served, using the following standard language: —Please share this information with all the other people who drink this

water, especially those who may not have received this public notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail; and

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

(c) A public water system providing notice pursuant to this article shall comply with the following multilingual-related requirements:

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

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

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

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

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

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

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

Appendix 64465-A. Health Effects Language - Microbiological Contaminants.

Contaminant	Health Effects Language
Total Coliform	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform/E. coli	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Turbidity	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Section 64469 (Reporting Requirements) states in relevant part:

(d) Within 10 days of giving initial or repeat public notice pursuant to Article 18 of this Chapter, except for notice given under section 64463.7(d), each water system shall submit a certification to the State Board that it has done so, along with a representative copy of each type of public notice given.

Section 64481 (Content of the Consumer Confidence Report) states in relevant part:

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

- (1) Monitoring and reporting of compliance data.

Bacteriological Distribution Monitoring Report

1500349

Stockdale MWC

Distribution System Freq: 1/M

Sample Date	Location	T Coli	E Coli	F Coli	HPC	Type	Cl2	Cl2 Avg	Viol. Type	GWR Satisfied?	Comments
5/5/2016	306 Mt. Lowe Dr.	<1	<1			Repeat	1.24				
5/5/2016	310 Mt. Lowe Dr.	<1	<1			Repeat	1.06				
5/5/2016	314 Mt. Lowe Dr.	<1	<1			Repeat	0.96				
5/4/2016	314 Mt. Lowe Dr.	31	<1			Repeat					
5/4/2016	310 Mt. Lowe Dr.	18	<1			Repeat			MCL		
5/4/2016	306 Mt. Lowe Dr.	12	<1			Repeat					
5/2/2016	310 Mt. Lowe Dr.	P	A			Routine					
4/14/2016	6502 Yosemite	A	A			Routine					
3/7/2016	5 samples	<1	<1			Routine	0				
2/25/2016	405 Fairway	5.3	<1			Other					
2/25/2016	407 Fairway	7.5	<1			Other					
2/25/2016	402 Fairway	7.5	<1			Other					
2/3/2016	402 Fairway	A	A			Repeat					
2/3/2016	405 Fairway	P	A			Repeat					
2/3/2016	407 Fairway	P	A			Repeat			MCL		4/12/16 Issued Cit 03_12_007.
2/1/2016	407 Fairway	P	A			Routine					
1/4/2016	210 Fairway Dr.	A	A			Routine					
12/7/2015	407 Fairway	A	A			Routine					
11/24/2015	5 samples	A	A			Other					
11/18/2015	5 samples	A	A			Routine					
10/27/2015	210 Fairway Dr.	P	A			Repeat	0.09				
10/27/2015	310 Mt. Lowe Dr.	P	A			Repeat	0.19				
10/27/2015	333 Fairway	P	A			Repeat	0.08				
10/27/2015	407 Fairway	A	A			Repeat	0.04				
10/27/2015	6502 Yosemite PI	P	A			Repeat	0.0				
10/9/2015	203 Fairway	A	A			Repeat					
10/9/2015	205 Fairway	A	A			Repeat					
10/9/2015	210 Fairway	A	A			Repeat					
10/9/2015	407 Fairway	A	A			Repeat					
10/9/2015	98 Fairway	A	A			Repeat					
10/7/2015	98 Fairway	P	A			Routine	0.07		MCL	Yes	11/25/15 Issued Cit 03_12_15C_023 for Sept & Oct 2015.
10/7/2015	203 Fairway	P	A			Routine	0.0				
10/7/2015	210 Fairway	P	A			Routine					
10/7/2015	205 Fairway	P	A			Routine	0.0				
10/7/2015	407 Fairway Dr	P	A			Routine					
9/8/2015	100 Fairway Dr.	A	A			Other	0.26				
9/8/2015	210 Fairway Dr.	A	A			Other	0.29			Yes	
9/8/2015	205 Fairway Dr.	A	A			Other	0.31				
9/4/2015	210 Fairway Dr.	A	A			Repeat					
9/4/2015	100 Fairway Dr.	P	A			Repeat			MCL		11/25/15 Issued Cit 03_12_15C_023 for Sept & Oct 2015.
9/4/2015	205 Fairway Dr.	P	A			Repeat					
9/2/2015	210 Fairway Dr.	P	A			Routine	0.01				

Violation Key

MCL	Exceeds the maximum contaminant level	MR5	Incorrect number of repeat samples as follow-up to a positive sample
MR1	No monthly sample for the report month	MR6	No source sample
MR2	No quarterly sample for the report month	MR7	No summary report submitted
MR3	Incorrect number of routine samples for the report month	MR8	Other comments and/or info
MR4	Did not collect 5 routine samples for previous month's positive sample	MR9	Cl2 not reported

Source Bacteriological Monitoring Report

1500349 Stockdale MWC

<i>Sample Date</i>	<i>Time</i>	<i>Source</i>	<i>Sample Type</i>	<i>Test Method</i>	<i>T Coli</i>	<i>E Coli</i>	<i>F Coli</i>	<i>HPC</i>	<i>Violation</i>	<i>Comments</i>
5/5/2016	9:15	Well 01	GWR Well	MPN	<1	<1				CL2=0.55
5/5/2016	9:30	Well 02	GWR Well	MPN	<1	<1				CL2=1.71
5/4/2016	12:28	Well 01	GWR Well	MPN	<1	<1				
5/4/2016	12:57	Well 02	GWR Well	MPN	11	<1				
3/7/2016		Wells 1 & 2	Well	MPN	<1	<1				
2/25/2016	9:30	Well 01	Other	MPN	<1	<1				
2/25/2016	9:51	Well 02	Other	MPN	3.1	<1				
2/3/2016	14:03	Well 01	GWR Well	MPN	<1	<1				
2/3/2016	14:28	Well 02	GWR Well	MPN	2.0	<1				
11/18/2015	15:25	Well 01	Well	MPN	<1	<1				
11/13/2015	7:56	Well 01	Well	MPN	1.0	<1				
11/13/2015	8:23	Well 02	Well	MPN	<1	<1				
10/8/2015	18:16	Well 01	Well	MPN	<1	<1				
9/8/2015	13:20	Well 01	GWR Well	MPN	<1	<1				
9/8/2015	13:40	Well 02	GWR Well	MPN	<1	<1				
9/4/2015	11:17	Well 02	GWR Well	P/A	P	A				

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este informe contiene información muy importante sobre su agua potable.
Por favor hable con alguien que lo pueda traducir.

Stockdale Mutual Water Company's water system Had Levels of Coliform Bacteria Above the Drinking Water Standard

Our water system failed a drinking water standard in May 2016. Although this incident was not an emergency, as our customers, you have a right to know what you should do, what happened and what we did to correct this situation.

We routinely monitor for drinking water contaminants. We took _____ [Insert number of samples] samples to test for the presence of coliform bacteria in May 2016. _____ [Insert Number positive] of these samples showed the presence of total coliform bacteria. The standard is that no more than 1 sample per month may show the presence of coliform bacteria.

What should I do?

- **You do not need to boil your water or take other corrective actions.**
- This is not an emergency. If it had been, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves. *Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.*
- Usually, coliforms are a sign that there could be a problem with the treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. We did not find any of these bacteria in our subsequent testing.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1(800) 426-4791.
- If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

What happened? What is being done?

[Describe corrective action.] _____ We anticipate resolving the problem within _____ [estimated time frame].

For more information, please contact _____ [insert name of contact] at _____ [insert phone number] or at the following mailing address: _____ [insert business/ mailing address].

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail.

Secondary Notification Requirements

Upon receipt of notification from a person operating a public water system, the following notification must be given within 10 days [Health and Safety Code Section 116450(g)]:

- **SCHOOLS:** Must notify school employees, students, and parents (if the students are minors).
- **RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS** (including nursing homes and care facilities): Must notify tenants.
- **BUSINESS PROPERTY OWNERS, MANAGERS, OR OPERATORS:** Must notify employees of businesses located on the property.

This notice is being sent to you by Stockdale MWC.

Date distributed: _____.

PROOF OF NOTIFICATION
(Return with copy of the Notice)

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by the **Stockdale Mutual Water Company - 1500349** of the failure to meet the **total coliform bacteria MCL** for the month of **May 2016** as directed by the Division. At least one primary distribution method is required: mail, hand-delivery or newspaper publication. A second method is also required in order to reach persons not likely to be reached by a mailing, direct delivery or newspaper publication (renters, nursing home patients, prison inmates, etc.):

Notification was made on _____
(date)

To summarize report delivery used and good-faith efforts used, please check all items below that apply and fill-in where appropriate:

- The notice was distributed by mail delivery to each customer served by the water system.
- The notice was distributed by direct delivery to each customer served by the water system.
Specify direct delivery method(s) used: _____
- Publication of the notice in a local newspaper or newsletter of general circulation (attach a copy of the published notice, including name of newspaper and date published).
- Posted the notice at the following conspicuous locations served by the water system (if needed, please attach a list of locations).

- Posted the notice on the Internet at www. _____
- Other method used to notify customers. _____

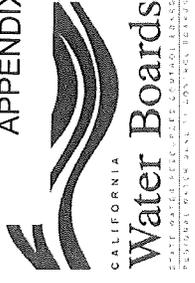
DISCLOSURE: Be advised that Section 116725 and 116730 of the California Health and Safety Code state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the attached order may be liable for a civil penalty not to exceed five thousand dollars (\$5,000) for separate violation for each day that violation continues. In addition, the violators may be prosecuted in criminal court and upon conviction, be punished by a fine of not more than \$25,000 for each day of violation, or be imprisoned in the county jail not to exceed one year, or by both the fine and imprisonment.

Certified by Name and Title: _____

Date: _____ Signature: _____

Due to the Division of Drinking Water within 10 days of notification to the public
Total Coliform MCL Failure / Enforcement Action No.: 03_12_16C_017

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT Simple Systems with a Well and Storage/Pressure Tank and No Treatment



This form is intended to assist public water systems in completing the investigation required by the federal revised Total Coliform Rule (rTCR) [effective April 1, 2016] and may be modified to take into account conditions unique to the water system. **To avoid a violation, an assessment report must be completed and returned to your local regulatory agency no later than 30 days after the trigger date.**

ADMINISTRATIVE INFORMATION

Entity Name:	Name	System Address & Email	Telephone Number
PWSID NUMBER:	System Type:		
Operator in Responsible Charge (ORC)	Person that collected TC samples if different than ORC		
System Owner			
Certified Laboratory for Microbiological Analyses			
Date Investigation Completed:			
Month(s) of Coliform Treatment Technique Trigger:			

INVESTIGATION DETAILS

SOURCE	WELL (name)	WELL (name)	WELL (name)	WELL (name)	COMMENTS (attach additional pages if needed)
1. Inspect each well head for physical defects and report					
a. Is raw water sample tap upstream from point of disinfection?					
b. Is wellhead vent pipe screened?					
c. Is wellhead seal watertight?					
d. Is well head located in pit or is any piping from the wellhead submerged?					
e. Does the ground surface slope towards well head?					
f. Is there evidence of standing water near the wellhead?					
g. Are there any connections to the raw water piping that could be cross connections? (describe all connections in comments)					
h. Is the wellhead secured to prevent unauthorized access?					
i. How often do you take a raw water total coliform (TC) test?					
j. Provide the date and result of the last TC test at this location					

STORAGE

	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
1. Is each tank locked to prevent unauthorized access?					
2. Are all vents of each tank screened down-turned to prevent dust and dirt from entering the tank?					
3. Is the overflow on each tank screened?					
4. Are there any unsealed openings in the tank such as access doors, water level indicators hatches, etc.?					

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM

Simple Systems with a Well and Pressure Tank and No Treatment

STORAGE	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
5. Is the roof/cover of the tank sealed and free of any leaks?					
6. Is the tank above ground or buried?					
a. If buried or partially buried, are there provisions to direct surface water away from the site.					
b. Has the interior of the tank been inspected to identify any sanitary defects, such as root intrusion?					
7. Does the tank "float" on the distribution system or are there separate inlet and outlet lines?					
8. What is the measured chlorine residual (total/free) of the water exiting the storage tank today ?					
9. What is the volume of the storage tank in gallons?					
10. Is the tank baffled?					
11. Prior to the TC+ or EC+, what was the previous date item #1-6 were checked and documented?					

PRESSURE TANK	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
1. What is the volume of the pressure tank?					
2. What is the age of the pressure tank?					
3. Is the pressure tank bladder type or air compressor type?					
4. Did the pressure tank(s) deviate from normal operating pressure?					
5. Is the compressor pump running more often than normal?					
6. Is the tank bladder broken and the tank water logged?					
7. Is the tank(s) damaged, rusty, leaking, or has holes?					
8. Was there any recent work performed?					
9. Is the air relief vent (if there is one) on the pressure tank screened and facing downwards?					
10. Can the inside of the pressure tank be visually inspected thru an inspection port? If so, when was the last time it was inspected?					

DISTRIBUTION SYSTEM	SYSTEM RESPONSES			
1. What is the minimum pressure you are maintaining in the distribution system?				
2. Did pressure in the distribution system drop to less than 5 psi prior to experiencing the total coliform positive finding?				
3. Has the distribution system been worked on within the last week? (service taps, hydrant flushing, main breaks, main extensions, etc.) If yes, provide details.				

REVISED TOTAL COLIFORM RULE (RTCRR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
4. Are there any signs of excavations near your distribution system not under the direct control of your maintenance staff?	
5. Did you inspect your distribution system to check for mainline leaks? Do you or did you have a mainline leak?	
6. If there was a mainline leak, when was it repaired?	
7. On what date was the distribution system last flushed?	
8. Is there a written flushing procedure you can provide for our review?	
9. Do you have an active cross connection control program?	
10. What is name and phone number of your Cross-Connection Control Program Coordinator?	
11. Have all backflow prevention devices in the distribution system been tested annually and repaired/replaced if they did not pass and retested afterwards?	
12. On what date was the last physical survey of the system done to identify cross-connections?	

SAMPLE SITE EVALUATION (Complete for all TC+ or EC+ findings)	Routine Site TC+ or EC+	Upstream Site	Downstream Site	4 th Repeat Sample (specify)
	1. What is the height of the sample tap above grade? (inches)			
2. Is the sample tap located in an exterior location or is it protected by an enclosure?				
3. Is the sample tap threaded, have a swing arm (kitchen sink) or aerator (sinks)?				
4. Is the sample tap in good condition, free of leaks around the stem or packing?				
5. Can the sample tap be adjusted to the point where a good laminar flow can be achieved without excessive splash?				
6. Is the sample tap and area around the sample tap clean and dry (free of animal droppings, other contaminants or spray irrigation systems)				
7. Is the area around the sample tap free of excessive vegetation or other impediments to sample collection?				
8. Describe how the tap was treated in preparation for sample collection (ran water, swabbed with disinfectant, flamed, etc.)				
9. Is this sample tap designated on the bacteriological sample siting plan (BSSP) as a routine or repeat site?				
10. Were the samples delivered to the laboratory in a cooler and within the allowable holding time?				
11. What were the weather conditions at the time of the positive sample (rainy, windy, sunny)?				

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

GENERAL OPERATIONS:	Response
1. Has the sampler(s) who collected the samples received training on proper sampling techniques? If yes, please indicate date of last training.	
2. Does the water system have a written sampling procedure and was it followed?	
3. Where there any power outages that affected water system facilities during the 30 days prior to the TC+ or EC + findings?	
4. Were there any main breaks, water outages, or low pressure reported in the service area from which TC+ or EC+ samples were collected?	
5. Does the system have backup power or elevated storage?	
6. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	
7. What were the symptoms of illness if you received complaints about customers being sick?	

SUMMARY: Based on the results of your assessment and any other available information, what deficiencies do you believe to have caused the positive total coliform sample(s) within your distribution system? (DO NOT LEAVE BLANK)

Deficiency #	Deficiency Description
1.	
2.	
3.	
4.	
5.	

CORRECTIVE ACTIONS: What actions have you taken to correct the above mentioned deficiencies? If additional time is needed to correct a deficiency, indicate the date that it will be corrected. (DO NOT LEAVE BLANK)

Deficiency #	Corrective Action	Completion/Proposed Date
1.		
2.		
3.		
4.		
5.		

REVISED TOTAL COLIFORM RULE (RTCR) – LEVEL 1 ASSESSMENT FORM
Simple Systems with a Well and Pressure Tank and No Treatment

Page 5 of 5

CERTIFICATION: I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

NAME: _____ **TITLE:** _____ **DATE:** _____

Upon review of the Level 1 Assessment Form, the local regulatory agency may require submittal of the following additional information:

- Sketch of system showing all sources, all treatment and chlorination locations, storage tanks, microbiological sampling sites and general layout of the distribution system including the location of all hazardous connections such as the wastewater treatment facility.
- A set of photographs of the source, pressure tanks, and storage tanks in the system may be submitted if they would show that the contamination is directly related and changes have been made since the last inspection by the local regulatory agency.
- Name, certification level and certificate number of the Operator in Responsible Charge.
- Copy of the last cross connection survey performed that identifies the location of all unprotected cross connections.

CHLORINATION TREATMENT OPERATIONS PLAN (GROUNDWATER SOURCE)

Date of Plan: _____

Water System Name: _____ System No.: _____

Name of Treatment Facility: _____

Brief description of water system, number of service connections and population served, source (date of drilling, depth, perforations, pump setting), storage (capacity and material), chlorinator treatment unit (type of chlorinator pump, capacity of pump, manufacturer and model, and size of the chlorine solution storage tank):

Inspection: A certified water distribution/treatment operator and trained personnel conduct inspection of the treatment facility(ies) which consists of visual inspection of the equipment, checking and filling the chlorine solution vessel, measuring the chlorine residual, adjusting the equipment, calculating the dosage rate and writing down the results of the inspection as explained below. Specifically:

1. A **certified water distribution or certified treatment operator** must come on-site and inspect the chlorination facility **MONTHLY**.
2. A certified operator can also assign **trained personnel** to do the following required activities **WEEKLY**.

A. Visual inspection of chlorination pump and disinfection reservoir

- i. Inspect the pump for proper operation.
- ii. Inspect the disinfectant in the reservoir for concentration and adequate volume for the operational period (record results).
- iii. Determine if there is enough disinfectant on hand for one or more weeks.

B. Measure the disinfectant residual in the distribution system (approved free chlorine test kit required).

- i. Record the results **WEEKLY** in the Chlorine Residual Report (see the attached sheet).
- ii. Determine if an adequate level of disinfectant is maintained.
- iii. If disinfectant level is low, determine the reason and correct.
- iv. If no measurable disinfectant, notify owner, determine reason, and remedy. If no disinfectant for 24 hours, notify Division.
- v. Send the Chlorine Residual Report monthly to the Division by fax or mail hardcopies by the 10th day following the end of month when the residuals were collected.

Responding to failures or interruptions: Failure or interruption of chlorination treatment will be handled in accordance with the attached written procedure. This procedure will include prompt correction of the problem and restoration of the chlorine residual. The availability of a replacement or back-up chemical feed system will be addressed. The certified operator, or trained personnel under direction of the certified operator, shall be the only people permitted to respond to failures or interruptions.

Record Keeping: The record keeping requirements are shown on the attached forms. These forms or their equivalent will be used to maintain the following records:

1. Date and time of inspection, name of operator
2. Chlorine residual and location of residual measurement
3. Production records
4. Operational notes including weekly calculation of chemical dosage (see attached form)
5. Chlorination failure log
6. Maintenance performed (both preventative and unscheduled maintenance)

Operator Certification

Water System Name: _____ System No. _____

Name of the Person Preparing the Operations Plan: _____

Signature of the Person: _____ Date: _____

Attachments - Forms for calculating dosages, chlorination failure plan, and monitoring

Response to Failures and Interruptions for Hypochlorination Systems

Name of Water System: _____ System Number: _____

In the event the chlorination system is found to be not operating or injecting too little chlorine solution, the following plan of action will be taken to correct the problem or situation. The plan should address the availability of a spare chlorinator, manual feeding of chlorine until the problem is resolved, more frequent chlorine residual monitoring, etc.:

Short-term chlorinator interruption (i.e. less than one day):

Long-term chlorine interruption (i.e. chlorinator cannot be repaired):

Prepared by: _____ Date: _____

Notes: This plan is to be posted at the chlorination station.
This plan is to be reviewed and updated annually.

Calculating Chemical Dosages

The calculation of chemical dosages is important in order to track the effectiveness of the chemical feed process. To calculate the chemical dosage over a specific period of time, you need to know:

1. Quantity of water produced (gallons)
2. Amount of solution injected (gallons)
3. Percent of available chlorine in liquid hypochlorite (usually 5.25% or 12.5%)
4. Number of gallons of liquid hypochlorite used to make the solution.
5. Number of gallons of solution made with one gallon of the liquid hypochlorite. For example, if one gallon of liquid hypochlorite were added to 24 gallons of water, the final mixture would contain 25 gallons of solution.

The dosage is calculated by plugging these numbers into the following formula.

NOTE: "X" means multiply!

$$\text{Dosage} = \frac{10,000 \times (\text{Amount of solution injected}) \times (\text{Percent of available chlorine})}{(\text{Quantity of water produced}) \times (\text{Gallons of solution made with one gallon of hypochlorite})}$$

Example: Over a seven-day period, a system produced 40,000 gallons of water. During that time period, the system used 30 gallons of solution. When mixing up the solution, the operator mixes one gallon of chlorine with 24 gallons of water to make 25 gallons of solution. The strength of the liquid chlorine solution is 12.5%. The following is a calculation of the dosage:

$$\text{Dosage} = \frac{10,000 \times (30) \times (12.5)}{(40,000) \times (25)} = 3.75 \text{ milligrams per liter (mg/L)}$$

Weekly Dosage Calculations

Week 1 - Date _____ Dosage = $\frac{10,000 \times (\quad) \times (\quad)}{(\quad) \times (\quad)} =$

Week 2 - Date _____ Dosage = $\frac{10,000 \times (\quad) \times (\quad)}{(\quad) \times (\quad)} =$

Week 3 - Date _____ Dosage = $\frac{10,000 \times (\quad) \times (\quad)}{(\quad) \times (\quad)} =$

Week 4 - Date _____ Dosage = $\frac{10,000 \times (\quad) \times (\quad)}{(\quad) \times (\quad)} =$

Chlorination Operational Log

Month and Year _____

System Name _____ Facility Name _____

Maximum Capacity of the Chlorination Pump _____

Were there any malfunctions of the chlorination system this month? Yes _____ No _____

If yes, list the date the malfunction occurred and action taken. Problems that cannot be promptly corrected must be reported to the California Department of Public Health. Bacteriological sampling must be conducted if the safety of the water is in question:

Date	Time	Operator	Chlorine Rate		Crock Level	Meter Reading	Chlorine Residual		Operational Notes
			Speed	Stroke			Injection Pt.	Distribution	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

1. Operational notes include weekly dosage calculations, addition of solution, changes in feed rate and other pertinent info.
2. This form is to be maintained for each chlorination facility.
3. This form is to be kept on file for review by the Department.

Chlorine Residual Report

System Name: _____ Month: _____
System Number: _____ Year: _____

Day	Sampling Address	Residual
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

Guidance on Operational Requirements for Chlorination Systems

This document summarizes basic operational requirements for chlorination systems serving public water systems under the regulatory jurisdiction of the Division of Drinking Water (Division). Compliance with these requirements will help ensure reliable and consistent chlorination.

This document does not address safety considerations, which are of obvious importance. These requirements relate to the operation of existing chlorination systems. These requirements do not address design standards. The design of new chlorination systems is reviewed in the Division's water supply permit process. Problems with design of existing systems noted by the Division during inspections will be brought to the attention of the water supplier.

Applicability: These requirements are directed towards chlorination of groundwater sources (i.e. wells), which are not subject to significant bacteriological contamination. Wells that show significant bacteriological contamination of the raw water may be subject to additional reliability requirements and surface water filtration requirements.

The bacteriological quality of the source should be established based on raw water bacteriological sampling. Ongoing sampling of the raw water source should be done to ensure that a significant problem is not being masked by the chlorination process. This document does not address chlorination of surface water, which is subject to more stringent requirements.

Equipment

1. The equipment must be maintained in good operating condition.
2. The equipment must be covered from the elements and protected against unauthorized access. Hypochlorite solutions must be sheltered from direct sunlight to prevent the formation of chlorination byproducts.
3. Equipment must provide a consistent feed rate under all operating conditions.
4. The chlorinator must be activated by the circuit controlling the well pump or in response to a signal from the flow meter.
5. A flow meter must be provided in order to calculate chemical dosages.
6. The chlorine solution storage crock must be designed for use in mixing and measuring chlorine solutions. It should be large enough to hold enough solution for one week of peak use plus a prudent reserve. The amount of chemical in the crock must be able to be accurately measured by taking readings marked on the container.
7. Equipment for monitoring chlorine residuals must use the DPD method. For example, the Hach DR100 Colorimeter or equivalent may be used.

Chemical Additive Requirements

Effective January 1, 1994, all chemicals or products, including chlorine, added directly to the drinking water as part of a treatment process must meet the ANSI/NSF Standard 60. The manufacturer or distributor of the chemical should be able to provide you with documentation of compliance with this requirement.

Monitoring of Chlorination System

Inspecting and adjusting the equipment: Equipment should be inspected often enough to ensure prompt detection of problems. Daily inspection of the equipment is recommended. The required frequency of inspecting the equipment is set on a case-by-case basis depending on the system

configuration, the consequences of an undetected failure and historical system reliability. The Division requires that all groundwater systems that chlorinate inspect their chlorination systems at least once per week and maintain written records for 5 years.

The inspection should consist of a visual inspection of the equipment, checking and filling the chlorine solution level, measuring the free chlorine residual, adjusting the equipment, calculating the dosage rate and writing down the results of the inspection. Any problems noted must be corrected.

Monitoring the free chlorine residual: The free chlorine residual of the water must be measured and recorded on a regular basis. Daily measurement of the residual is generally required and is strongly recommended. The required frequency for measuring the residual is set on a case-by-case basis.

Responding to failures or interruptions: Each system must have a written procedure for responding to chlorination failures or interruptions. This procedure must include prompt repair or correction of the problem and restoration of the chlorine residual. The availability of a replacement or back-up chemical feed system must be addressed.

Record-keeping: The minimum record-keeping requirements are shown on the attached forms. These forms must be used to maintain the following minimum records:

1. Date and time of inspection, name of operator
2. Chlorine residual and location of residual measurements using the DPD method
Note: The orthotolodine (OTO) method cannot be used for compliance purposes
3. Production records
4. Operational notes including weekly calculation of chemical dosage (see attached form)
5. Chlorination failure log
6. Maintenance performed (both preventative and unscheduled maintenance)

Operator Certification

The Division's Operator Certification Regulations specify that all public water systems that have water treatment facilities will require certified water treatment operators, except those systems that only use disinfection facilities for groundwater, where no Giardia or virus reduction is required, can meet the operator certification requirements with a certified distribution operator. Please refer to the classification assigned to your water system or contact the Division for the classification. The certified operator shall be responsible for determining and controlling the proper chlorine dosage rates and distribution system chlorine residual levels.

STATE OF CALIFORNIA
APPLICATION
FOR
DOMESTIC WATER SUPPLY PERMIT
FROM

Applicant: _____
(Enter the name of legal owner, person(s) or organization)

Address: _____

System Name: _____

System Number: _____

TO: Division of Drinking Water
Southern California Branch
Drinking Water Field Operations
Visalia District Office
265 W. Bullard Avenue, Suite 101
Fresno, California, 93704



Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116525, relating to domestic water supply permits, application is hereby made for a domestic water

supply permit to operate _____
(Applicant should state the type of system, e.g., community,

transient-noncommunity, or nontransient-noncommunity, and the proposed area of services. This application will also be used

for a change in ownership application.

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

By: _____

Title: _____

Address: _____

Telephone: _____

Dated: _____

Stage II Disinfectants/Disinfection Byproduct Rule Monitoring Plan Form For Small Water Systems

TTHM MCL = 0.080 mg/l HAA5 MCL = 0.060 mg/l

System Name: _____ System No. _____

No. of Monitoring Locations: _____ Population: _____ No. of pressure zones: _____

Source Type: (Circle all that apply): Groundwater Surface Water Both

(The following information may be attached in a separate table or sheet if necessary.)

A map of the distribution system must be attached to include all the facilities mentioned below and DBP sample location(s) is required. A picture of the DBP monitoring location(s) is optional.

TTHM/HAA5 Monitoring Frequency

Location 1: _____ PSCode: _____

Frequency: Routine _____ Increased _____ Reduced _____

Sample Location Description (Address, Building No., Source, etc.): _____

Water Quality Lab: _____

Sample Date (Month): _____

Justification for selecting site: _____

Location 2: _____ PSCode: _____

Frequency: Routine _____ Increased _____ Reduced _____

Sample Location Description (Address, Building No., Source, etc.): _____

Water Quality Lab: _____

Sample Date (Month): _____

Justification for selecting site: _____

(If there are more monitoring locations attach on an additional sheet.)

Calculating MCL Compliance

Compliance will be based on concentration of an annual sample result per sample location.

Disinfectant Residual Monitoring (Free Chlorine Residual)

Sample Location & Frequency: *Same time and location as coliform bacteriological monitoring sample(s). See system Bacteriological Sample Siting Plan. The maximum residual disinfectant level (MRDL) = 4 mg/L.*

Source Name(s), Location(s) and, if applicable, Seasonal Variability of Use:

Treatment Plant Facilities (Includes each chlorinator and its injection point):

Storage Tank(s) Identification & Location:

Signature

Date