



EDMUND G. BROWN JR.  
GOVERNOR



MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

**State Water Resources Control Board**  
Division of Drinking Water

May 27, 2015  
System No.: 1502398

Mr. John Lewis  
Farmer John Egg Ranch #2  
5110 E. Panama Lane  
Bakersfield, CA 93307

RE: **Citation No. 03-12-15C-005**  
**Violation of Title 22, California Code of Regulations, Section 64426.1,**  
**For April 2015**

Dear Mr. Lewis:

Enclosed is a Citation issued to the Farmer John Egg Ranch #2 (Water System) public water system.

The Water System will be billed at the Division's hourly rate (currently estimated at \$126.00) for the time spent on issuing this Citation. The California Health and Safety Code Section 116577 provides that a public water system must reimburse the Division for actual costs incurred by the Division 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 Division of Drinking Water Fee Billing Unit in August of the next fiscal year. This bill will contain fees for any enforcement time spent during the the current fiscal year.

If you have any questions regarding this letter and the enclosed citation, please contact Ms. Shen Huang or me at (559) 447-3300.

Sincerely,

A handwritten signature in cursive script that reads "Tricia A. Wathen".

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

TAW/LR  
Enclosures  
cc: Kern County Environmental Health Department

1  
2  
3 CALIFORNIA  
4 STATE WATER RESOURCES CONTROL BOARD  
5 DIVISION OF DRINKING WATER  
6

7 IN RE: **FARMER JOHN EGG RANCH #2**  
8 Water System No.: 1502398

9 TO: Mr. John Lewis  
10 5110 E. Panama Lane  
11 Bakersfield, CA 93307

12 Cc: Kern County Environmental Health Department  
13

14 CITATION NO. 03\_12\_15C\_005  
15 FOR  
16 VIOLATION OF HEALTH AND SAFETY CODE SECTION 116650(a)  
17 AND THE PRIMARY DRINKING WATER STANDARD FOR TOTAL COLIFORM  
18 Issued: May 27, 2015

19 The State Water Resources Control Board (hereinafter "Board"), acting by and through its  
20 Division of Drinking Water (hereinafter "Division") and the Deputy Director for the Division  
21 (hereinafter "Deputy Director"), hereby issues this citation (hereinafter "Citation"), pursuant  
22 to Section 116650 of the California Health and Safety Code (hereinafter "CHSC") to Farmer  
23 John Egg Ranch #2 (hereinafter "Water System") for violation of CHSC section 116550(a)  
24 and Title 22, California Code of Regulations (hereinafter "CCR"), Section 64426.1.  
25  
26  
27

1 **APPLICABLE AUTHORITIES**

2 **CHSC, Section 116550 states in relevant part:**

- 3 (a) If the department determines that a public water system is in violation of this chapter or  
4 any regulation, permit, standard, citation, or order issued or adopted thereunder, the  
5 department may issue a citation to the public water system. The citation shall be served  
6 upon the public water system personally or by certified mail. Service shall be deemed  
7 effective as of the date of personal service or the date of receipt of the certified mail. If a  
8 person to whom a citation is directed refuses to accept delivery of the certified mail, the  
9 date of service shall be deemed to be the date of mailing.
- 10 (b) Each citation shall be in writing and shall describe the nature of the violation or  
11 violations, including a reference to the statutory provision, standard, order, citation,  
12 permit, or regulation alleged to have been violated.
- 13 (c) A citation may specify a date for elimination or correction of the condition constituting the  
14 violation.
- 15 (d) A citation may include the assessment of a penalty as specified in subdivision (e).
- 16 (e) The department may assess a penalty in an amount not to exceed one thousand dollars  
17 (\$1,000) per day for each day that a violation occurred, and for each day that a violation  
18 continues to occur. A separate penalty may be assessed for each violation.

19 **Title 22, CCR, Section 64421 (hereinafter "Section 64421"), states in relevant part:**

20 **Section 64421**

- 21 (a) Each water supplier shall:

22 ...  
23 (5) Comply with the Maximum Contaminant Level as required in §64426.1.

24 **Title 22, CCR Section 64426.1 (hereinafter "Section 64426.1") provides in relevant  
25 part:**

26 **Section 64426.1: Total Coliform Maximum Contaminant Level (MCL).**

- 27 ...
- (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.



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The five routine samples required the month following a month with one or more total coliform positive samples were collected on May 4, 2015. One of three samples detected the presence of total coliform bacteria. The Water System collected repeat samples on May 6, 2015 and all of these were negative for total coliform bacteria. The well was also sampled on May 6 in compliance with the Groundwater Rule; the results of the analysis were negative to total coliform bacteria.

Public notification to the Division and consumers of a water system is required whenever a violation of the Total Coliform MCL occurs. The Division was notified on April 9, 2015, in accordance with the above referenced section

Public notification to the customers of the Water System was conducted on April 15, 2015, advising each customer of the failure of the total coliform MCL during the month of April 2015. A copy of the notice that was directly delivered to each customer is provided as Attachment D. Proof of Notification is provided as Attachment E.

**DETERMINATION**

Based on the above Statement of Facts, the Division has determined that the Water System has violated CHSC, Section 116550 and Section 64426.1 in that the water produced by the Water System failed to comply with Title 22, CCR, Section 64426.1, Total Coliform MCL for the month of April 2015 due to the presence of total coliform bacteria in 2 of 4 samples collected in the month of April 2015.

1           **DIRECTIVES**

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

- 3
- 4
- 5           1.    Comply with Title 22, CCR, Section 64426.1, in all future monitoring periods.
- 6
- 7           2.    The Water System shall collect five (5) routine samples for total coliform analysis
- 8                    during the month of June 2015.
- 9
- 10          3.    By **June 30, 2015**, a chlorine injection port and all necessary equipment shall be
- 11                    installed on the discharge of Well 01 for the purpose of providing emergency
- 12                    disinfection of the water delivered from Well 01. In addition, the Water System shall
- 13                    prepare and submit an Emergency Disinfection Plan to the Division for review and
- 14                    approval by June 30, 2015. Guidance for this is provided in Attachment F. Information
- 15                    regarding the installation of the chlorination equipment and installation procedures
- 16                    shall be submitted to the Division along with the Emergency Disinfection Plan.

17

18          All submittals required by this Citation shall be addressed to:

19                    Tricia Wathen, Senior Sanitary Engineer  
20                    State Water Resources Control Board  
21                    Division of Drinking Water, Visalia District  
22                    265 W. Bullard Ave, Suite 101  
23                    Fresno, CA 93704

24

25          As used in this Citation, the date of issuance shall be the date of this Citation; and the date

26                    of service shall be the date of service of this Citation, personal or by certified mail, on the

27                    Water System.

1 The Division reserves the right to make such modifications to the Citation as it may deem  
2 necessary and/or to issue such further citation(s) as it may deem necessary to protect public  
3 health and safety. Such modifications may be issued as amendments to this Citation and  
4 shall be effective upon issuance.  
5

6 Nothing in this Citation relieves Water System of its obligation to meet the requirements of  
7 the California SDWA, or any regulation, standard, permit or order issued thereunder.  
8

9 **PARTIES BOUND**

10 This Citation shall apply to and be binding upon Farmer John Egg Ranch #2, its owners,  
11 shareholders, officers, directors, agents, employees, contractors, successors, and  
12 assignees.  
13

14 **SEVERABILITY**

15 The Directives of this Citation are severable, and Water System shall comply with each and  
16 every provision hereof, notwithstanding the effectiveness of any other provision.  
17

18 **FURTHER ENFORCEMENT ACTION**

19 The California SDWA authorizes the Board to: issue a citation with assessment of  
20 administrative penalties to a public water system for violation or continued violation of the  
21 requirements of the California SDWA or any regulation, permit, standard, citation, or order  
22 issued or adopted thereunder including, but not limited to, failure to correct a violation  
23 identified in a citation or compliance order. The California SDWA also authorizes the Board  
24 to take action to suspend or revoke a permit that has been issued to a public water system if  
25 the public water system has violated applicable law or regulations or has failed to comply  
26 with an order of the Board; and to petition the superior court to take various enforcement  
27

1  
2 measures against a public water system that has failed to comply with an order of the  
3 Board. The Board does not waive any further enforcement action by issuance of this Order.

4  
5  
6 May 27, 2015  
Date

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

7  
8  
9 Certified Mail No. 7014 3490 0001 7868 8828

10 TAW/LR

11 Attachments:

12 Attachment A: Summary of Distribution Bacteriological Samples from April 2015 to May 2015

13 Attachment B: Positive Total Coliform Investigation report

14 Attachment C: Summary of Source Bacteriological Samples

Attachment D: Public Notice for April 2015

Attachment E: Proof of Notification Form

Attachment F: Emergency Disinfection Plan Requirements Guidance



## Bacteriological Distribution Monitoring Report

**1502398**     **Farmer John Egg Ranch #2**

**Distribution System Freq: 1/M**

| Sample Date | Location                        | T Coli | E Coli | F Coli | HPC | Type    | CI2 | CI2 Avg | Viol. Type | GWR Satisfied? | Comments |
|-------------|---------------------------------|--------|--------|--------|-----|---------|-----|---------|------------|----------------|----------|
| 5/6/2015    | 5110 E. Panama Ln.              | A      | A      |        |     | Repeat  |     |         |            |                |          |
| 5/6/2015    | 5034 E. Panama Ln.              | A      | A      |        |     | Repeat  |     |         |            |                |          |
| 5/6/2015    | 5006 E. Panama Ln               | A      | A      |        |     | Repeat  |     |         |            |                |          |
| 5/4/2015    | 5006 E. Panama                  | P      | A      |        |     | Routine |     |         |            | Yes            |          |
| 5/4/2015    | 5034 E. Panama Ln               | A      | A      |        |     | Routine |     |         |            |                |          |
| 5/4/2015    | 5110 E. Panama Ln.              | A      | A      |        |     | Routine |     |         |            |                |          |
| 5/4/2015    | Emp. Break Rm Sink              | A      | A      |        |     | Routine |     |         |            |                |          |
| 5/4/2015    | Packing Plant E.O/S Wall        | A      | A      |        |     | Routine |     |         |            |                |          |
| 4/8/2015    | 5006 E. Panama Ln.              | <1     | <1     |        |     | Repeat  |     |         |            |                |          |
| 4/8/2015    | 5034 E. Panama Ln.              | <1     | <1     |        |     | Repeat  |     |         |            |                |          |
| 4/8/2015    | 5110 E. Panama Ln.              | 1.0    | <1     |        |     | Repeat  |     |         | MCL        | Yes            |          |
| 4/6/2015    | 5110 E. Panama Ln, Pcking Plant | P      | A      |        |     | Routine |     |         |            |                |          |

### 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 | CI2 not reported   |

**POSITIVE TOTAL COLIFORM INVESTIGATION**  
**Simple Well with Pressure Tank Systems**

This form is intended to assist public water systems in completing the investigation required by the Division of Drinking Water (Section 64426(b) of Title 22, California Code of Regulations) and may be modified to take into account conditions unique to the system.

**ADMINISTRATIVE INFORMATION**

|  |                                  |
|--|----------------------------------|
| <b>PWS Name:</b> Farmer John Ranch #2 Water System       | <b>PWSID NUMBER:</b> 1502398     |
| <b>Name</b>  | <b>Address</b>                   |
| Tyler Beck   | 3220 Patton Way, Bakersfield, CA |
| Steve Horst  | 3220 Patton Way, Bakersfield, CA |
| John Lewis   | 5110 Panama Ln 93307             |
| BC Labs  | 4100 Atlas Ct, Bakersfield, CA   |
| <b>Operator in Responsible Charge (ORC)</b>              | <b>Telephone #</b>               |
| Person that collected TC samples if different than ORC   | 661-800-1443                     |
| <b>Owner</b>   | 661-323-5115                     |
| <b>Certified Laboratory for Microbiological Analyses</b> | 661-845-9441                     |
| <b>Date Investigation Completed:</b> 4-15-2015           | 800-878-4911                     |
| <b>Month(s) of Total Coliform MCL Failure:</b> 1         |                                  |

**INVESTIGATION DETAILS**

| SOURCE   | WELL   |                                    | COMMENTS |
|--|--------|------------------------------------|----------|
|  | (name) |                                    |          |
| 1. Inspect each well head for physical defects and report  | 1      |                                    |          |
| a. Is raw water sample tap upstream from point of disinfection?  |        | Yes                                |          |
| b. Is wellhead vent pipe screened?   |        | Yes                                |          |
| c. Is wellhead seal watertight?  |        | Yes                                |          |
| d. Is well head located in pit or is any piping from the wellhead submerged?   |        | No                                 |          |
| e. Does the ground surface slope towards well head?  |        | No                                 |          |
| f. Is there evidence of standing water near the wellhead?  |        | No                                 |          |
| g. Are there any connections to the raw water piping that could be cross connections? (describe all connections in comments) |        | No                                 |          |
| h. Is the wellhead secured to prevent unauthorized access?   |        | No                                 |          |
| i. To what treatment plant (name) does this well pump?   |        | N/A                                |          |
| j. How often do you take a raw water total coliform (TC) test?   |        | After positive distribution sample |          |
| k. Provide the date and result of the last TC test at this location  |        | 4-8-2015 Negative                  |          |

RECEIVED  
 APR 29 2015  
 SARGOS - DWAP  
 FRESNO FOB

**DISTRIBUTION SYSTEM**

**SYSTEM RESPONSES**

|  |         |
|--|---------|
| 1. What is the minimum pressure you are maintaining in the distribution system?          | 45 psig |
| 2. Did pressure in the distribution system drop to less than 5 psi prior to experiencing | No      |

# POSITIVE TOTAL COLIFORM INVESTIGATION

| DISTRIBUTION SYSTEM   | SYSTEM RESPONSES                    |
|---|-------------------------------------|
| the TCR 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. | No                                  |
| 4. Are there any signs of excavations near your distribution system not under the direct control of your maintenance staff?                                       | No                                  |
| 5. Did you inspect your distribution system to check for mainline leaks? Do you or did you have a mainline leak?  | Yes, inspected, there were no leaks |
| 6. If there was a mainline leak, when was it repaired?  |                                     |
| 7. On what date was the distribution system last flushed?   | After positive samples              |
| 8. Is there a written flushing procedure you can provide for our review?  | No                                  |
| 9. Do you have an active cross connection control program?  | No                                  |
| 10. What is name and phone number of your Cross-Connection Control Program Coordinator?   | N/A                                 |
| 11. Is the review and testing of backflow prevention devices current?   | No                                  |
| 12. On what date was the last physical survey of the system done to identify cross-connections?   | Unknown                             |

RECEIVED

APR 29 2015

SOURCE - DDMV  
FRESNO FOB

| SAMPLE SITE EVALUATION (Complete for all TC+ or EC+ findings)  | Routine Site<br>TC+ or EC+ | Upstream Site     | Downstream<br>Site | Sample 4<br>(specify) |
|--|----------------------------|-------------------|--------------------|-----------------------|
|  |                            |                   |                    |                       |
| 1. What is the height of the sample tap above grade? (inches)  | Sink faucet                | Sink faucet       | Sink faucet        | 24"                   |
| 2. Is the sample tap located in an exterior location or is it protected by an enclosure?   | En                         | En                | En                 | Ex                    |
| 3. Is the sample tap threaded, have a swing arm (kitchen sink) or aerator (sinks)?   | Swing arm                  | Swing arm         | Swing arm          |                       |
| 4. Is the sample tap in good condition, free of leaks around the stem or packing?  | Yes                        | Yes               | Yes                | Yes-now               |
| 5. Can the sample tap be adjusted to the point where a good laminar flow can be achieved without excessive splash?                           | Yes                        | Yes               | Yes                | Yes                   |
| 6. Is the sample tap and area around the sample tap clean and dry (free of animal droppings, other contaminants or spray irrigation systems) | Yes                        | Yes               | Yes                | Yes                   |
| 7. Is the area around the sample tap free of excessive vegetation or other impediments to sample collection                                  | Yes                        | Yes               | Yes                | Yes                   |
| 8. Describe how the tap was treated in preparation for sample collection (ran water, swabbed with disinfectant, flamed, etc.)                | Disinfectant swab          | Disinfectant swab | Disinfectant swab  | Disinfectant swab     |
| 9. Is this sample tap designated on the sampling plan submitted with this information request?   | Yes                        | Yes               | Yes                | Yes                   |
| 10. What were the weather conditions at the time of the positive sample (rainy, windy, sunny)?   | Sunny                      | Sunny             | Sunny              | Sunny                 |

# POSITIVE TOTAL COLIFORM INVESTIGATION

Page 3 of 3

| GENERAL OPERATIONS:   | Response |
|---|----------|
| 1. Where there any power outages that affected water system facilities during the 30 days prior to the TC+ or EC + findings?                                | No       |
| 2. Where there any main breaks, water outages, or low pressure reported in the service area where TC+ or EC+ samples were located.                          | No       |
| 3. Does the system have backup power or elevated storage?   | No       |
| 4. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many? | No       |
| 5. What were the symptoms of illness if you received complaints about customers being sick?   | No       |

## ADDITIONAL INFORMATION TO BE SUBMITTED WITH RESPONSES TO THE ABOVE QUESTIONS

1. Sketch of System showing all sources, treatment 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.
2. A set of photographs of the well, 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 our Department
3. Name, certification level and certificate number of the Operator in Responsible Charge.
4. Copy of the last cross connection survey performed that identifies the location of all unprotected cross connections.

## SUMMARY: BASED ON THE RESULTS OF YOUR INVESTIGATION AND ANY OTHER INFORMATION AT YOUR DISPOSAL, WHAT DO YOU BELIEVE TO BE THE CAUSE OF THE POSITIVE TOTAL COLIFORM SAMPLES FROM YOUR PUBLIC WATER SYSTEM?

Bacterial regrowth in the lines and pressure vessel. We did a disinfection starting at the well and the results after the disinfection were negative.

**CERTIFICATION: I CERTIFY THAT THE INFORMATION SUBMITTED IN RESPONSE TO THE QUESTIONS ABOVE IS ACCURATE TO THE BEST OF MY PROFESSIONAL KNOWLEDGE**

NAME: Tyler Beck *Tyler Beck*

TITLE: Operator

DATE: 4-15-15

Please sign card.

Signature: Robert T. Beck  
Due: 7-1-2017  
Expires: 11-1-2017 Fee Paid: \$80  
Level: Grade D2 Operator # 44319  
Name: Robert T. Beck  
Water Distribution Operator  
This verifies that the individual named below  
has paid the appropriate fee and is a certified  
State Water Resources Control Board  


Receipt and Pocket ID Card

State Water Resources Control Board  
Drinking Water Operator Certification Program  
P. O. Box 944212, Sacramento, CA 94244-2120  
Phone: (916) 449-5611 Fax: (916) 449-5654  
Internet Address: [http://www.waterboards.ca.gov/drinking\\_water/certification/occupations/DWopcert.shtml](http://www.waterboards.ca.gov/drinking_water/certification/occupations/DWopcert.shtml)

# Source Bacteriological Monitoring Report

**1502398 Farmer John Egg Ranch #2**

| <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> |
|--------------------|-------------|---------------|--------------------|--------------------|---------------|---------------|---------------|------------|------------------|-----------------|
| 5/6/2015           | 13:54       | Well 01       | GWR Well           | P/A                | A             | A             |               |            |                  |                 |
| 4/8/2015           | 11:40       | Well          | GWR Well           | MPN                | <1            | <1            |               |            |                  |                 |

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

**Farmer John Egg Ranch #2 Has Levels of Coliform Bacteria Above the Drinking Water Standard**

Our water system recently failed a drinking water standard. 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 have taken 5 samples to test for the presence of coliform bacteria in April 2015. Two 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] Initial chlorination of well was completed. Emergency chlorination system will be installed per regulation. [estimated time frame] We anticipate resolving the problem within 30 days

For more information, please contact Lori Petris [insert name of contact] at 661-845-9441 [insert phone number] or at the following mailing address: 5110 E. Panama Lane, Bakersfield, CA 93301 [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 provided by Farmer John Egg Ranch #2.  
04/15/15

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 **Farmer John Egg Ranch #2 (1502398)** of the failure to meet the **total coliform bacteria MCL** for the month of **April 2015** as directed by the Division. At least one primary distribution method is required: mail, hand-delivery or posting in conspicuous locations. A second method is also required in order to reach persons not likely to be reached by a mailing, direct delivery or posting:

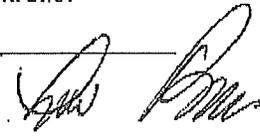
Notification was made on 4/15/15 (date)

To summarize report delivery used and good-faith efforts taken, 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: hand delivery
- 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). \_\_\_\_\_
- Email message to employees or students. \_\_\_\_\_
- 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: Lori Petris -Controller

Date: 4/15/15 Signature: 

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

## Division of Drinking Water Visalia District

### EMERGENCY DISINFECTION PLAN REQUIREMENTS

An emergency disinfection plan, designed to outline procedures in the event of bacteriological contamination, shall be developed and a copy submitted to the Division of Drinking Water (Division) Visalia District office. The plan shall outline specific response procedures for disinfection of wells, pressure tanks, storage tanks and installation of emergency chlorination equipment. Guidance on the operation of the emergency disinfection equipment, to be included in the Emergency Disinfection Plan, are included in the attached document (Emergency Disinfection Plan Guidance).

The plan shall state that the necessary equipment is on-site or readily available and the means by which to connect and activate it have been provided. Those items needed to accommodate emergency chlorination equipment include:

- An all weather, 110 volt electrical receptacle, energized by the well pump operation.
- A three-quarter (3/4) inch threaded tap on the piping downstream of the well check valves for use as a chlorine injection point.
- A sample tap (non-threaded) at least three to six feet downstream of the chlorine injection point.

The plan should further state that qualified personnel (specify who) are under contract to carry out the plan and install, adjust and operate the equipment as necessary. The plan should also include the treatment or distribution operator certification grade and emergency telephone numbers of water system staff and certified operator(s).

*Attachment: Emergency Disinfection Plan Guidance*

## **Emergency Disinfection Plan Guidance for Public Water Systems**

The purpose of this Emergency Disinfection Plan (EDP) is to assist utilities implementing emergency chlorination. The guidance provided below is designed to facilitate the installation of emergency chlorination equipment and to assist in the setting of chemical dosage in order to maintain acceptable free chlorine residual needed to insure public health protection immediately after a disaster. Items which should be obtained prior to the onset of a disaster include the following equipment:

1. Emergency chlorination units.
2. Chlorine residual test kits (preferably DPD)
3. Granular Calcium Hypochlorite, 65% available chlorine, (liquid sodium hypochlorite has a relatively short shelf life so it is advisable that it not be purchased in advance). Chemicals used for emergency chlorination must be approved under ANSI/NSF<sup>1</sup> Standard 60 (direct additives).

### **Installation Procedures**

A utility should not wait until an emergency has occurred before it attempts to install its emergency chlorination equipment. It is advisable that all field maintenance staff be familiar with the installation procedures in order to quickly install the emergency chlorination equipment. The remainder of this plan addresses the use of hypochlorinators in the event of an emergency. For those utilities which use gas chlorination units, they should already be familiar with their operation if they are using this type of equipment.

The chlorination equipment purchased by the utility must be adequately sized for the proposed installation. The feed capacity of the hypochlorinator should allow the utility to dose at a minimum of 5 parts per million free chlorine residual. After the emergency chlorination units have been physically connected to the wells and/or other sources in question, refer to the attached table or use the following procedures to calculate the appropriate settings. If you are unable to perform these calculations, contact a staff of the Drinking Water Program immediately.

The attached tables may be used to mix a solution of a known strength. Decide on a solution strength that you wish to use and find the amount of chlorine needed for a 100 gallon barrel from Table 1.

Table 2 can be used to determine the volume of solution to be added for different flow rates for each mg/L of chlorine dosage. It should be recognized that large capacity wells will need stronger solution strengths or the feed barrel will need to be filled too frequently. The volumes in table 2 are in gallons per day (gpd). If the feed pump capacity is given in gallons per hour, then the volume from Table 2 must be divided by 24 to give a gph value.

To determine the appropriate pump setting, the value from Table 2 must be divided by the feed pump capacity.

Example:

Feed Pump Capacity = 10 gph; Q = 1500 gpm; 7% solution; 5 mg/L dosage

From table 2 → Chlorine Volume = 30.9 gpd for each mg/L.

For 5 mg/L →  $5 \times (30.9) = 154.5$  gpd

Since feed pump has a maximum capacity of 10 gph, the appropriate length of stroke setting is:

$$\frac{154.5 / 24}{10 \text{ gph}} = 0.64$$

Outlined below are the equations to use if the Tables are not used:

1. A solution barrel of a known volume must be obtained. The barrel should be filled with a known volume of water. To this volume, a known weight of chemical should be added. The solution strength must be determined using the equation given below:

$$\% \text{ solution} = \frac{\text{Weight of chemical added to solution barrel (lbs)} \times 100}{\text{Weight of water in solution barrel (lbs)}}$$

(1 gallon of water weighs 8.34 lbs)

A 6% solution can be obtained by adding one half pound of chemical per gallon of water using a 100 gallon barrel. (see below):

$$50 / (100 \times 8.34 \text{ lb/gal of water}) \times 100 = 5.99 \text{ or } 6\%$$



used to get percentage

To calculate the pounds per hour of chemical that must be added to obtain a known chlorine concentration, the following equation must be used:

Equation #1:

$$\text{lbs per hour of chemical} = 8.34 \times \text{desired dosage in ppm} \times \text{flow rate in gpm} \times 60 \text{ min}/1,000,000$$

Assuming the desired dosage is 5 ppm that gives the following equation:

Equation #2: lbs per hour of chemical =  $2.5 \times 10^{-3} \times \text{flow rate in gpm}$

Next you must determine the required gallons per hour of chemical to be added. This must be obtained using the following equation:

Equation #3:

$$\text{gallons per hour of chemical} = \text{lbs per hour} / 8.34 / \text{solution strength} / 100 \text{ (from above)}$$

Once this value has been obtained, then the next step is to review the maximum feed rate in gallons per day of the chemical feed pump. This is generally printed in a label attached to the pump and it may specify the discharge pressure this maximum rate applies to. Most chemical feed pumps have either a length of stroke setting or two settings for frequency of stroke and length of stroke. To determine what settings should be used, a review of the instrumentation on the pump must be conducted.

If two control settings are provided, then set the frequency control at 100% and provide adjustment only to the length of stroke adjustment. The equation to be used to determine at what setting the length of stroke should be, is given below:

Percent length of stroke = gallons per hour (obtained above) x 24 x 100 / the pump capacity in gpd

This numerical setting should be used when adjusting the pump. If both pump settings are to be changed from 100%, then the percent stroke equation is as follows:

Percent length of stroke = gallons per hour x 24 x 100 / stroke frequency / pump capacity in gpd

A check on the actual dosage can be performed by using the total gallons of solution pumped within a known operating period. That information can be used as follows:

Actual Dosage =  $\frac{\text{gallons of solution} \times \text{solution strength}}{\text{gallons of water treated in MG}}$

An easier way to use hypochlorination equipment is to have calibration or volumetric feed cylinders installed on the intake line to the pump. If these cylinders are available, then a known volume of solution can be pumped and the time it takes to pump that volume is used to determine gallons per hour at a known discharge pressure. The actual percent solution must still be known to conduct the other calculations.

Once a utility has implemented emergency chlorination of their system, it is important to conduct follow up distribution chlorine residual monitoring to determine the effectiveness of the chlorination process. In the event of an emergency, hypochlorination equipment should be used to dose the system at 2 ppm of free chlorine residual. Chlorine residual monitoring within the distribution system should take place to verify that an adequate residual is being obtained at all locations within the distribution system. Any areas which have suppressed chlorine residuals should receive further investigation to determine whether or not there are other problems associated with the reduced residuals.

Flushing should be provided if possible, to draw the chlorinated water into the distribution system as soon as possible.

In addition to the chlorine residual monitoring, bacteriological sampling of the distribution system in all areas should be conducted. Chlorine residual monitoring in addition to bacteriological sampling should be used to further define areas of distribution system that need additional investigation. Chlorination of the system should continue until it has been verified that no structural problems exist within the distribution system and all bacteriological monitoring shows that there is no presence of pathogenic organisms.

**TABLE 1**  
**AMOUNT OF CHLORINE PER 100 GALLON BARREL\***

| Type of Chlorine            | Solution Strength | 3%     | 4%     | 5%      | 6%     | 7%     | 8%      | 9%      | 10%     | 11%     | 12%     | 13% |
|-----------------------------|-------------------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|-----|
| 5% Sodium Hypochlorite**    |                   | 60 gal | 80 gal | 100 gal |        |        |         |         |         |         |         |     |
| 12.5% Sodium Hypochlorite** |                   | 24 gal | 32 gal | 40 gal  | 48 gal | 56 gal | 64 gal  | 72 gal  | 80 gal  | 88 gal  | 96 gal  |     |
| 65% Calcium Hypochlorite*** |                   | 38 lbs | 51 lbs | 64 lbs  | 77 lbs | 90 lbs | 103 lbs | 116 lbs | 128 lbs | 141 lbs | 167 lbs |     |

\* Add the quantity indicated to the 100 gallon barrel and then fill the remaining volume with water.

\*\* The sodium hypochlorite must be ANSI/NSF<sup>1</sup> certified for potable drinking water and approved as direct additive (ANSI/NSF Standard 60).  
1: American National Standard Institute (ANSI) or National Sanitation Foundation (NSF)

\*\*\* HTH, tablets or granular chlorine

Example: For 10% solution using 12.5% sodium hypochlorite, use 80 gallons of sodium hypochlorite and add 20 gallons of water.

Example: For 10% solution using 65% available Calcium Hypochlorite (CaHOCl), use 128 lbs of granular chlorine and add water to fill barrel and mix.

**TABLE 2**

**CHLORINE VOLUME REQUIRED GALLONS PER DAY (GPD) PER MG/L OR PPM OF DESIRED CHLORINE DOSAGE\***

| Flow Rate | Solution Strength | 3%   | 4%   | 5%   | 6%   | 7%   | 8%   | 9%   | 10%  | 11%  | 12%  | 13%  |
|-----------|-------------------|------|------|------|------|------|------|------|------|------|------|------|
| 50 gpm    |                   | 2.4  | 1.8  | 1.4  | 1.2  | 1.03 | 0.9  | 0.8  | 0.7  | 0.7  | 0.6  | 0.6  |
| 75 gpm    |                   | 3.6  | 2.7  | 2.0  | 1.8  | 1.5  | 1.4  | 1.2  | 1.0  | 1.0  | 0.9  | 0.8  |
| 100 gpm   |                   | 4.8  | 3.6  | 2.9  | 2.4  | 2.0  | 1.8  | 1.6  | 1.4  | 1.3  | 1.2  | 1.1  |
| 300 gpm   |                   | 14.4 | 10.8 | 8.6  | 7.2  | 6.2  | 5.4  | 4.8  | 4.3  | 3.9  | 3.6  | 3.3  |
| 500 gpm   |                   | 24.0 | 18.0 | 14.4 | 12.0 | 10.3 | 9.0  | 8.0  | 7.2  | 6.6  | 6.0  | 5.5  |
| 800 gpm   |                   | 38.4 | 28.8 | 23.0 | 19.2 | 16.5 | 14.4 | 12.8 | 11.5 | 10.5 | 9.6  | 8.9  |
| 1000 gpm  |                   | 48.0 | 36.0 | 28.0 | 24.0 | 20.6 | 18.0 | 16.0 | 14.4 | 13.1 | 12.0 | 11.1 |
| 1500 gpm  |                   | 72.0 | 54.0 | 43.2 | 36.0 | 30.9 | 27.0 | 24.0 | 21.6 | 19.6 | 18.0 | 16.6 |
| 2000 gpm  |                   | 96.0 | 72.0 | 57.6 | 48.0 | 41.1 | 36.0 | 32.0 | 28.8 | 26.2 | 24.0 | 22.2 |

\* Values in the Table are the flow rates in gallons of solution per day that be added for each mg/L of desired dosage.

Example: Well Discharge = 1,000 gpm

Solution Strength = 5%

Desired Dosage = 5 mg/L or 5 ppm

From Table 2, Need to add 28.8 gpd per mg/L (or ppm)

Therefore, 5 mg/L x 28.8 gpd/(mg/L) = 144 gpd.