STATE OF CALIFORNIA

WATER RESOURCES CONTROL BOARD

DIVISION OF DRINKING WATER

TO: Lion Raisins Packing Company
P.O. Box 1350
Selma, CA 93662

Water System No. 1000486

Attn: Kasia Derewacz

CITATION FOR VIOLATION OF CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64426.1 (b) (2) - TOTAL COLIFORM MAXIUMUM CONTAMINANT LEVEL

November 2015; January and February of 2016

C I T A T I O N NO. 03-23-16C-005

Issued on February 29, 2016

Section 116650 of the California Health and Safety Code authorizes the issuance of a citation to a public water system for violation of the California Safe Drinking Water Act (Health and Safety Code, Division 104, Part 12, Chapter 4, commencing with Section 116270) (hereinafter "California SDWA"), or any regulation, standard, permit or order issued or adopted thereunder.

The State Water Resources Control Board, acting by and through its Division of Drinking Water (hereinafter "Division") and the Deputy Director for the Division (hereinafter "Deputy Director"), hereby issues a citation to the Lion Raisins Packing Company Water System (hereinafter, Water System) (mailing address: P.O. Box 1350, Selma, CA 93662) for violation of California Code of Regulations (CCR), Title 22, Section 64426.1 subsections (b)(2).

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STD. 113 (REV. 3-95)
OSP 98 10924

APPLICABLE AUTHORITIES

Section 116650 of California Health and Safety Code provides:

(a) If the Division 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 Division 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 Division 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, Section 64426.1, subsections (a) and (b) provide, in relevant part:

§64426.1. Total Coliform Maximum Contaminant Level (MCL).

(a) Results of all samples collected in a calendar month pursuant to Sections 64423, 64424, and 64425 that are not invalidated by the Division or the laboratory shall be included in determining compliance with the total coliform MCL. Special purpose samples such as those listed in §64421(b) and samples collected by the water supplier during special investigations shall not be used to determine compliance with the total coliform MCL.

(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

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STATEMENT OF FACTS

The Water System is operated under Water Supply Permit No. 03-23-11P-017, issued by the Division on May 11, 2011. Lion Raisins Packing Company Water System is a non-transient non-community water system that used groundwater obtained from three wells. The Water System serves a packing facility with a population of approximately two hundred fifty (250) people through three (3) service connections and two distribution zones. Zone 1 is served by Well 2 and Zone 2 is served by Well 1 and Well 3.

The Water System is required to collect a minimum of one (1) distribution system bacteriological sample per month. The bacteriological water analysis results submitted by the Water System reported the presence of total coliform bacteria in three (3) of eleven (11) samples collected from Well 2 and the zone it serves during November 2015. Additionally, the Water System reported the presence of total coliform bacteria in three (3) of ten (10) samples collected from Well 1 and Well 3 and the zone they serve during January 2016. Furthermore, the Water System reported the presence of total coliform bacteria in two (2) of five (5) samples collected from the distribution system served by Wells 1 and 3 to date during February 2016. None of the positive samples showed the presence of fecal coliform or *E. coli* bacteria.

The following table summarizes the bacteriological monitoring conducted during the months of November and December 2015 and January and February of 2016.

Collection Date	Number of Samples	Sample Labeled	Number TC positive	Number E. Coli positive
11/9/2015	2	Routine including Well 2 (Cl_2 resid. = not reported)	2	0

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11/10/2015	4	Repeat including Well 2 (Cl_2 residual = 0.02 ppm)	1 (distribution only)	0
11/16/2015	4	Repeat including Well 2 (Cl_2 residual 1.87-2.36 ppm)	0	0
12/1/2015	5	Routine (Dist. Cl_2 residual = 0.31 – 0.58 ppm)	0	0
1/13/2015	1	Routine (Dist Cl_2 residual not reported)	1	0
1/14/2015	4	Repeat including Well 1 (Dist Cl_2 residual not reported)	2 (distribution only)	0
1/18/2016	1	Source Repeat - Well 3	0	0
1/28/2016	4	Distribution only (Cl_2 residual not reported)	0	0
2/10/2016	5	Routine Distribution (Cl_2 residual not reported)	2	0

Due to the above-mentioned total coliform positive samples, the Water System has failed the total coliform MCL for the months of November 2015 and January and February 2016. Although it is believed that Well 2 has been equipped with continuous chlorination since late 2015, there was no chlorine residual reported with the routine samples collected on November 9, 2015. The Zone served by Well 1 and Well 3 has not been previously equipped with continuous chlorination. A Positive Total Coliform Investigation Form has not been completed. Citation No. 03-23-14C-066 issued on October 2, 2014 for violation of the Total Coliform MCL during June, July and August 2014 required the installation of continuous chlorination on Wells 1, 2, and 3 in the event the Total Coliform MCL was violated again. The Water System has not applied for an amended permit allowing the installation of continuous chlorination on any of the wells. As of the date of this citation, a cross connection control survey, also required by Citation 03-23-14C-066, has not been submitted to the Division. Although historical bacteriological monitoring include positive total coliform results for Well 1, 2 and 3, only Well 2 has tested positive to total coliform during 2015.

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The Groundwater Rule adopted by the Division, effective August 18, 2011, requires the collection of a sample for bacteriological evaluation from wells serving the system in response to a coliform positive distribution sample. It is difficult to determine whether this requirement was met because of the lack of as built diagrams detailing which sampling sites are served by each well.

VIOLATION

The Drinking Water Field Operations Branch of the State Water Resources Control Board – Division of Drinking Water (hereinafter 'Division') hereby issues a Citation to Lion Raisins Packing Company Water System (hereinafter 'Water System'), for failure to comply with Section 116555(a)(1) of the CHSC and Section 64426.1(b)(2) of Title 22, California Code of Regulations (CCR). Based on the Statement of Facts, the Water System has failed to comply with the total coliform Maximum Contaminant Level (MCL) for the months of November 2015 and January and February of 2016.

NOTIFICATION REQUIREMENTS

Section 64426.1(c) requires a public water system to notify the Division and the consumers of the water system, when a violation of Section 64426.1(b)(1) through (4) occurs. Notification to the Division shall be by the end of the business day on which the violation has been determined. If the Division is closed, notification shall be within 24 hours of the determination. The Division was notified in accordance with the above-referenced section regarding each violation.

A Tier 2 Public Notice for violation of paragraph 64426.1(b) (2) shall be given pursuant to Section 64463.4 and 64465. The Tier 2 Public Notice shall include the mandatory health effects language from Appendix 64465-A for a total coliform MCL failure.

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Section 64463.4 allows non-transient non-community water systems to give public notice by posting the notice in conspicuous locations throughout the area served by the water system and by the use of one or more of the following methods in order to reach persons not likely to be reached by a public posting: publication in a local newspaper or newsletter distributed to customers, e-mailing the public notice to water system customers, post the public notice on the internet, or by delivery to each customer.

The Water System shall post the public notice provided as Attachment B as described above.

Section 116450(g) requires that upon receipt of notification from a public water system, 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 their tenants and business property owners, managers or operators must notify employees of businesses located on the property.

Proof of notification is required. The Water System shall complete Attachment C and return it to the Division by **March 31, 2016**.

DIRECTIVES

1. By **March 15, 2016,** the Lion Raisins Packing Company water system shall provide public notification of the total coliform Maximum Contaminant Level failure for November 2015 and January and February 2016 by posting the notice provided as Attachment B in conspicuous locations throughout the area served by the water system and by the use of one or more of the following methods in order to reach persons not likely to be reached by a public posting: publication in a local newspaper or newsletter distributed to customers, e-mailing the public notice to

water system customers, post the public notice on the internet, or by delivery to each customer.

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By **March 31, 2016**, the Water System shall provide proof of public notification of the total coliform MCL violation for November 2015 and January and February 2016 by completing Attachment C and returning it to:

Betsy S. Lichti, Senior Sanitary Engineer
Division of Drinking Water
Drinking Water Field Operations Branch
265 W. Bullard Avenue, Suite 101
Fresno, CA 93704

2. By **March 31, 2016**, the Water System shall complete and submit the enclosed "Positive Total Coliform Investigation" form to the Division that describes the incident and all corrective actions taken, and the results of the investigation. The appropriate investigation report is provided as Attachment D.

3. By March 31, 2016, the Water System shall submit an amended Bacteriological Sample Siting Plan. The amended plan shall reflect clearly which sampling sites are served by which well(s). Guidance for completing a Bacteriological Sample Siting Plan is provided as Attachment E.

3. By **March 31, 2016**, the Water System shall provide as built plans showing the location of potable water pipes and their connections to the sources, including locations of isolation valves and identification of each "zone" served by each source.

4. The Water System will be required to maintain an approved Cross-Connection Control Program which shall include the following elements (as applied from Title 17, California Code of Regulations, Section 7584), and as outlined in Attachment F:

   a. The conducting of surveys to identify water user premises or locations where cross connections are likely to occur,
   b. The provisions of backflow protection by the Water user at the user's connection or within the user's premises or both,
   c. The provision of at least one person trained in cross-connection control to carry out the cross-connection program,
   d. The establishment of a procedure or system for annual testing of backflow preventers, and
   e. The maintenance of records of locations, tests, and repairs of backflow preventers.

   The survey and documentation of a valid Cross Connection Control Program shall be submitted to the Department by April 30, 2016. You may contact the SWRCB-DDW Fresno District for guidance in identifying a cross-connection specialist to conduct the survey.

5. **The Water System is hereby required to provide continuous chlorination treatment on each of the three active wells**. The following requirements shall be implemented:

   a) By **March 31, 2016**, the Water System shall make application to the Division for a permit to allow the continuous chlorination of the water supply. The appropriate form is provided as Attachment G. A permit fee of $250 shall be included at the time the application is submitted to the Division.

   b) Information regarding the permanent chlorination equipment, installation location, diagrams and installation procedures shall be submitted to the Division for review and approval prior to installation. The installation shall be conducted by a person qualified and experienced with chlorination equipment.

c) The Water System shall have on staff or under contract a minimum of a D1 Certified Distribution Operator to operate the chlorination equipment. Documentation of the contract with the operator as well as the operator's certification shall be provided to the Division by **March 31, 2016**.

d) A Chlorination Treatment Operations Plan shall be prepared and submitted for approval to the Division. A template that can be used is provided as Attachment H.

e) The certified operator shall visit the well site and review the chlorination treatment on at least a monthly basis. The following shall be recorded on the Monthly Chlorination Report (Attachment I): the date and time of the visit, well meter reading, chlorine solution strength, gallons of chlorine solution in tank, free chlorine residual after injection point, free chlorine residual at furthest point in distribution system, and any remarks or comments.

f) The chlorine residual at the well site shall be measured at least weekly by an individual trained by the certified operator and using approved field test kits. The chlorine residual shall be recorded on the Monthly Chlorination Report.

g) The distribution system chlorine residual must be measured and reported at the same time and location(s) that the bacteriological sample(s) are collected. The residual(s) should be provided to the Division along with the bacteriological laboratory analysis.

h) The Water System shall submit the Monthly Chlorination Report to the Division by the 10th day of the following month. The Monthly Chlorination Report shall

be signed by the certified operator approved for oversight of the chlorination treatment.

i) The Water System shall initiate monthly sampling of the each raw well's water for coliform bacteria. The sample must be collected at a location ahead of chlorination and shall be analyzed for total and fecal coliform or E.coli bacteria using a density analytical method with the analytical results reported in MPN/100 ml. The results of all samples shall be submitted to the Division by the 10th day of the following month. After six consecutive monthly samples do not show the presence of coliform bacteria, the water system may submit a written request to the Division for a reduction in sampling to one sample per quarter.

PARTIES BOUND

This Citation shall apply to and be binding upon Lion Raisins Packing Company Water System, its officers, directors, shareholders, agents, employees, contractors, successors, and assignees.

SEVERABILITY

The Directives of this Citation are severable, and Lion Raisins Packing Company Water System shall comply with each and every provision thereof, notwithstanding the effectiveness of any other provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the Division to: issue 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 permit, regulation, permit 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 Division to take action to suspend or revoke a permit that has been issued to a public water system if the system has violated applicable law or regulations or has failed to comply with an order of the Division; and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with violates an order of the Division. The Division does not waive any further enforcement action by issuance of this citation.

2/29/16
Date

Betsy S. Lichti, P.E.,
District Engineer
Division of Drinking Water
State Water Resources Control Board

Attachments:

A. Bacteriological Monitoring Reports
B. Public Notification Template
C. Proof of Notification Template
D. Positive Total Coliform Investigation Form
E. Guidance for the Development of a Bacteriological Sample Siting Plan
F. Cross Connection Control Program Guidance
G. Permit Amendment Application
H. Chlorination Treatment Operations Plan
I. Monthly Chlorination Report

Certified Mail Tracking Number: 7014 3490 0001 7868 8408

Bacteriological Distribution Monitoring Report

1000486 Lion Raisins Packing Company

Distribution System Freq: 1/M

Sample Date	Time	Location	T Coli	E Coli	F Coli	Type	Cl2	Violation	Comment
1/5/2015	13:55	OHB E. Side @ Dehydrator shop	A	A		Routine			
2/24/2015	11:10	OHB Front Door @ Dehydrator Office	A	A		Routine			
3/9/2015	14:30	OHB front door @ processing plant	A	A		Routine			
4/8/2015	12:00	OHB E. Side @ Dehydrator shop	A	A		Routine			
5/11/2015	10:47	OHB front door @ dehyrdrator office	A	A		Routine			
6/2/2015	12:37	OHB Front Door @ Processing Plant	A	A		Routine			
8/10/2015	11:35	OHB front door @ Dehydrator office	A	A		Routine			
9/3/2015	14:00	OHB Front Door @ processing Plant	A	A		Routine			
10/7/2015		Well 2 Raw Special	<1	<1		Other			
10/7/2015	11:45	OHB E. side @ Dehydrator shop	A	A		Routine			
11/4/2015		Post Chlorinator @ Well 2					0.12		
11/9/2015	12:10	OHB Front Door @ Dehydrator Office	P	A		Routine			
11/9/2015	12:15	Well 2 Raw Water	2.0	<1		Source Repeat			
11/10/2015	14:30	Site 2 Routine OHB @ front door	<1	<1		Repeat	0.02		
11/10/2015	14:35	Downstream OHB @ N. side	<1	<1		Repeat	0.02		
11/10/2015	14:41	Upstream OHB @ E. side	1.0	<1		Repeat	0.02	MCL	
11/10/2015	14:49	Well 02	<1	<1		Source Repeat	0		
11/16/2015	10:25	Well 02	<1	<1		Source Repeat			
11/16/2015	10:35	Upstream OHB @ E. Side	<1	<1		Repeat	2.05		
11/16/2015	10:40	Downstream OHB @ N. side	<1	<1		Repeat	2.36		
11/16/2015	10:47	Site 2 OHB @ Front Door	<1	<1		Repeat	1.87		
12/1/2015	14:32	Sink @ West USDA	A	A		Routine	0.31		
12/1/2015	14:35	OHB @ Side Door of Dehydrator Office	A	A		Routine	0.55		
12/1/2015	14:38	Sink @ Dehydrator Office Break Room	A	A		Routine	0.56		
12/1/2015	14:42	OHB @ Front Door of Dehydrator Office	A	A		Routine	0.58		
12/1/2015	14:44	OHB @ N Side of Dehydrator Office	A	A		Routine	0.56		
1/13/2016	13:33	OHB - E Side of Dehydrator Shop	P	A		Routine			
1/14/2016	15:02	Between Well and P.T.	1.0	<1		Repeat		MCL	
1/14/2016	15:08	Inside Wall @ Dehydrator	2.0	<1		Repeat			
1/14/2016	15:15	Well 001	<1	<1		Source Repeat			
1/14/2016	15:22	OHB @ E Side of Dehydrator Shop	<1	>1		Repeat			
1/18/2016	12:54	Well 023	<1	<1		Source Repeat			
1/28/2016	11:00	Dehydrator Shop Faucet-Sample 1	A	A		Other			
1/28/2016	11:05	Dehydrator Shop Faucet - Sample 2	A	A		Other			

Sample Date	Time	Location	T Coli	E Coli	F Coli	Type	Cl2	Violation	Comment
1/28/2016	11:15	Breakroom Faucet @ Pkg House - Sample 1	A	A		Other			
1/28/2016	11:20	Breakroom Faucet @ Pkg House - Sample 2	A	A		Other			
2/10/2016	13:39	OHB @ NE Side of Dehydrator Shop	A	A		Routine			
2/10/2016	13:45	OHB @ E. Side of Dehydrator Shop	A	A		Routine			
2/10/2016	13:58	OHB @ Pressure Tank	P	A		Routine		MCL	
2/10/2016	14:05	OHB @ N. Side of Dehydrator	A	A		Routine			
2/10/2016	14:10	OHB @ S. Side of Dehydrator	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	Cl2 not reported

Source Bacteriological Monitoring Report

1000486 Lion Raisins Packing Company

Sample Date	*Time*	*Source*	*Sample Type*	*Test Method*	*T Coli*	*E Coli*	*F Coli*	*HPC*	*Violation*	*Comments*
1/27/2010	11:30	Well #1	Well	092914	141	A				
2/24/2010	9:25	Well #1	Well	P/A	A	A				
10/31/2013	13:49	Well 1	Well	MPN	122.1	<1				
10/31/2013	14:00	Well 3	Well	MPN	372.4	<1				
12/18/2013	14:35	Well 1	Well	P/A	A	A				
12/18/2013	14:50	Well 3	Well	P/A	A	A				
4/10/2014	11:20	Well 1	Well	P/A	P	A				
4/10/2014	11:45	Well 2	Well	P/A	P	A				
7/10/2014	14:20	Well 2	Well	P/A	P	A				
7/10/2014	14:40	Well 3	Well	P/A	A	A				
7/10/2014	14:40	Well 1	Well	P/A	A	A				
9/23/2014	15:35	Well 1	Well	P/A	A	A				
9/23/2014	15:45	Well 3	Well	P/A	A	A				
9/29/2014	14:20	well 2	Well	MPN	<1.0	<1.0				
12/16/2014	11:03	well 2 raw water	Well	MPN	<1.0	<1.0				
1/5/2015	13:48	well 2	Well	MPN	<1	<1				
2/24/2015	11:15	Well 2	Well	MPN	<1	<1				
3/9/2015	14:35	well 2	Well	MPN	<1.0	<1.0				
4/8/2015	12:08	well 2	Well	MPN	<1.0	<1.0				
5/11/2015	10:52	well 2	Well	MPN	1.0	<1.0				
6/2/2015	12:45	Well 2	Well	MPN	<1.0	<1.0				
6/2/2015	12:48	post chlorinator @ well 2	Well							*chlorine residual 0.1*
7/13/2015	13:00	well 2 post chlorinator	Well							*0.3*
7/13/2015	13:05	well 2	Well	MPN	<1	<1				
9/3/2015	14:05	well 2	Well	MPN	12.1	<1				
9/3/2015	14:15	post chlorinater @ well 2	Well							*0.20*
10/7/2015	11:55	Well 2 Raw - special	Well	MPN	<1	<1				
10/7/2015	12:00	Post Chlorinator @ Well 2	Post CL2							*CL2=0.12*
11/4/2015	13:44	Post Chlorinator @ Well 2	Post CL2							*CL2=0.12*
11/9/2015	12:15	Well 2	Well	MPN	2.0	<1.0				
12/1/2015		Post CL2	Post CL2							*CL2=0.55 mg/L*
12/1/2015	14:57	Well 2 Raw Water	Well	MPN	<1	<1				
1/13/2016	12:56	Post CL2 @ Well 2	Post CL@							*CL2=2.02 mg/L*
1/13/2016	12:58	Well 2 Raw Water	Well	MPN	<1	<1				
1/18/2016	12:54	Well 023	Well	MPN	<1	<1				
2/10/2016	14:15	Post CL2	Post CL2							*CL2=0.92 mg/L*
2/10/2016	14:20	Well 2 Raw Water	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.

Lion Raisins Packing Company Water System 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 took eleven (11) samples to test for the presence of coliform bacteria during November 2015. Three of these samples showed the presence of total coliform bacteria. In January 2016 we took ten (10) samples and three of those samples showed the presence of total coliform bacteria and in February 2016, we have taken five (5) samples and two of those showed the presence of total coliform bacteria. The standard is that no more than one 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]._____

_____.

For more information, please contact _____[name of contact] at _____[phone number] or _____[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 Lion Raisins Packing Company Date distributed: _____

ATTACHMENT C

PROOF OF NOTIFICATION
(Return with copy of notice)

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by the **Lion Raisins Packing Company** of the failure to meet the **total coliform bacteria MCL** for the months of November 2015, **January and February 2016** as directed by the Division.

Notification was made on _____ by
(date)

_____ mailed and/or **hand delivered** and/or posted written notice.
(*circle all that apply*)

_____
Signature of Water System Representative

_____
Date

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.

Due: March 31, 2016
Total Coliform MCL Failure: November 2015 and January February 2016
System Number: 1000486
Citation No.: 03-23-16C-005

POSITIVE TOTAL COLIFORM INVESTIGATION

Attachment D

Simple Well with Pressure Tank Systems

This form is intended to assist public water systems in completing the investigation required by the SWRCB Drinking Water Division (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

PWS Name:		PWS ID NUMBER:	
	Name	**Address**	**Telephone #**
Operator in Responsible Charge (ORC)			
Person that collected TC samples if different than ORC			
Owner			
Certified Laboratory for Microbiological Analyses			
Date Investigation Completed:			
Month(s) of Total Coliform MCL Failure:			

INVESTIGATION DETAILS

SOURCE	WELL (name)	WELL (name)	WELL (name)	WELL (name)	COMMENTS
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. Is there a check valve on the well discharge line? Is the check valve seating properly?					
h. Are there any connections to the raw water piping that could be cross connections? (describe all connections in comments)					
i. Is the wellhead secured to prevent unauthorized access?					
j. To what treatment plant (name) does this well pump?					
k. How often do you take a raw water total coliform (TC) test?					
l. Provide the date and result of the last TC test at this location					

POSITIVE TOTAL COLIFORM INVESTIGATION

Attachment D

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 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.	
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. Is the review and testing of backflow prevention devices current?	
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	Sample 4 (specify)
1. What is the height of the sample tap above grade? (inches)				
2. Is the sample tap located in an **ext**erior location or is it protected by an **enc**losure?				
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 sampling plan submitted with this information request?				
10. What were weather conditions at the time of positive sample (rainy, windy, sunny)?				

POSITIVE TOTAL COLIFORM INVESTIGATION

Attachment D

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?	
2. Where there any main breaks, water outages, or low pressure reported in the service area where TC+ or EC+ samples were located.	
3. Does the system have backup power or elevated storage?	
4. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	
5. What were the symptoms of illness if you received complaints about customers being sick?	

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 Division.
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?

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

NAME:_____ TITLE:_____ DATE: _____

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

GUIDELINES FOR COMPLETING THE BACTERIOLOGICAL SAMPLE SITING PLAN FOR SMALL WATER SYSTEMS

The total coliform regulation requires the water supplier to submit a bacteriological sample siting plan to the Division for review and approval. The locations where samples are to be collected must be written down and formally approved by the Division. These guidelines and Attachment 1, "Bacteriological Sample Siting Plan" Form, are to assist you in complying with these requirements.

To comply with the requirements for submitting a Bacteriological Sample Siting Plan, two (2) items must be submitted to the Division at this time.

1. A system map, street map, or system schematic showing all sampling locations must be submitted. The map can be prepared by any system representative. It does not have to be prepared by an engineer. The following are also to be shown on the map:

   - Water Sources (i.e., well or spring)
   - Treatment Facilities (i.e., chlorination)
   - Storage Tanks
   - Pressure Reducing Stations
   - Booster Stations
   - Pressure Zones
   - Dead Ends
   - Service Area Boundaries
   - Routine Sample Sites
   - Repeat Sample Sites
   - Special Sample Sites

2. Complete Attachment 1, the "Bacteriological Sample Siting Plan" form, and **return the system map and form to the Division for review and approval.**

Once the Bacteriological Sample Siting Plan has been approved by the Division, copies should be provided to the person responsible for sample collection, the laboratory and the person responsible for reporting coliform-positive samples to the Division.

Selection of Sampling Sites

The routine sampling sites chosen must be representative of the water distribution system including all pressure zones, areas supplied by each water source and distribution reservoir.

Looped Systems: If your entire water distribution system is looped, then one routine sample point may be representative of your system, assuming valves are open.

Pressure Zones: You should only be concerned about sampling in different pressure zones if your water system serves different areas of varying elevations, for example in mountainous areas.

How many routine sampling sites are required?

A minimum of five (5) routine sampling sites must be selected and indicated on your map and sampling plan form. If your water system is required to collect fewer than 5 routine samples a month, then 5 routine samples must be collected the month following any coliform positive sample. This is the reason for identifying 5 routine sites in your plan.

If the water system is not adequately represented by 5 routine sample locations, you may identify additional locations and collect more than one sample per month. Each site identified should be rotated for sampling at least every three months.

How many repeat sampling sites are required?

For systems normally collecting one or fewer samples per month, a repeat sample set consists of four samples (could be greater than four if more than one source is providing water to the distribution) to be collected from the following locations:

- One repeat sample from the same routine location.
- One repeat sample from an *upstream location.*
  (within 5 connections of the routine site)
- One repeat sample from a *downstream location.*
  (within 5 connections of the routine site)
- One sample from *each active source.*
  (The following criteria should be considered when determining where to collect the fourth repeat sample.)
  - For systems with only one active well and do not provide continuous chlorination, the sample may be collected at the wellhead.
  - For systems with more than one active well, it may not be possible to determine which well was serving the area where the positive routine sample

was collected. For these systems, repeat samples should be collected at each well head.

- Contact the Division for assistance.

For systems collecting more than one routine sample per month, a repeat sample set consists of three samples from the following locations:

- One repeat sample from the same routine location.
- One repeat sample from an upstream location. (within 5 connections of the routine site)
- One repeat sample from a downstream location. (within 5 connections of the routine site)

What if the water system does not have enough locations to select the required number of routine and repeat sample sites?

If the water system does not have enough sample locations to identify 5 routine sites and 3 to 4 repeat sites per routine, you may either (1) identify fewer than 5 routine sites as long as the sampling adequately reflects water quality in the distribution system, or (2) use some of the routine sites as repeat sites for other routines (i.e., double up on use of available sites).

Pointers for Sample Site Selection

- When selecting a routine sample site you should be able to select a site upstream and a site downstream for repeat sampling.
- Select a site where the water is used continuously all year round.
- Pick a site that is easily accessible, i.e., a fenced yard with a locked gate and vicious dog is not a good selection.
- When choosing a sampling tap you should consider these factors:

  The sampling tap should be located in as clean an environment as possible. It should be protected from contamination by humans, animals, airborne materials or other sources of contamination.

  If you choose an outside private tap, it should be one that is in frequent use, clean, and at least 1½ feet (18 inches) above the ground. The sample tap should discharge downward.

  If you choose an inside tap, be sure that you are not sampling from drinking fountains; taps that have aerators or strainers, or swivel faucets; or taps off of individual homeowner treatment units.

  Do not choose a fire hydrant as sampling tap.

  Avoid taps that are surrounded by excessive foliage or taps that are dirty or corroded.

Avoid taps that leak, have fittings with packing, or have permanent hoses or attachments fastened to the tap (Never collect a sample from a hose).

Avoid the use of dead ends for routine sample collection, and use them for repeat samples only of no other sample sites are available and if there is continuous water use from a service off the dead-end.

Instructions for Completing the Bacteriological Sample Siting Plan Form

This form has been designed to include all the requirements for the Bacteriological Sample Siting Plan.

- **Public Water System Classification**

  The public water system (PWS) classification for your water system is either community, nontransient noncommunity or transient noncommunity. This classification determines the type and frequency of all water quality testing. If you are uncertain of your classification, contact the Division.

- **Month/Daily Users**

  The monthly population determines the frequency of bacteriological sample collection for community water systems. The daily population determines the frequency of sample collection for transient and nontransient noncommunity systems.

- **Active Service Connections (Community water systems only)**

  This is the number of active hook-ups served by the system. If your system has a hook-up to a vacant lot, do not count this as an active connection. If a vacant lot has a right to a future connection, do not count this an active connection. If a residence is connected to the system, but the residence is vacant, count this as an active hook-up.

- **Sampling Frequency**

  This is the minimum number of routine bacteriological samples required at the frequency specified. If any routine sample is positive for coliform bacteria, additional repeat samples will be required. Repeat samples are in addition to the required routine samples. If you are uncertain of the routine sampling frequency for your water system, contact the Division.

  A coliform-positive sample will increase the routine monitoring for a small system the following month. A system normally collecting less than 5 routine

samples per month, which has a coliform positive sample, must collect a minimum of five (5) routine samples the following month.

- **Trained Sampler**

The person collecting samples must be trained.

Sampling Service: Water systems utilizing a certified laboratory or other sampling service for water sample collection will be considered to have trained samplers. Enter the name of the laboratory or sampling service collecting your samples. A copy of the approved Bacteriological Sample Siting Plan should be provided to the laboratory or sampling service, if one is used.

Other Trained Samplers: Any person receiving a certificate from AWWA for attendance of the Water Sampling Training should submit a copy of their certificate along with the completed form. Any other samplers should submit a statement of their experience and training to this Division for approval.

- **Analyzing Lab**

Enter the state-certified laboratory, which will be analyzing your water samples.

- **Person Responsible to Report Coliform-Positive Samples to the Division**

This should be the person that the laboratory is required to contact when a sample is total or fecal coliform positive. This person must notify the Division within 24 hours of a violation of the total coliform standard (more than one positive sample in a month) or when any sample is fecal or *E. coli* positive. This person should have the authority to take corrective action as required by regulation and the Division. This should be the same person listed on your Emergency Notification Plan.

- **Day/Evening Phone Number**

The Division requires that the water system provide the phone numbers of the person listed above so that they can be contacted by the laboratory or the Division at any time during the day or evening in the event of a bacteriological emergency.

- **Signature and Date**

The person preparing the Sample Siting Plan should sign and date the plan. If the Division has questions regarding the sampling plan, this is the person to be contacted.

- **Sample ID**

This should be entered on the laboratory slip when the sample is turned into the laboratory. This is the unique identifier for the water sample location or the location address may also be used. For systems, which have no more than five (5) routine locations, these routine sites will be 1-ROU, 2-ROU, 3-ROU, 4-ROU, and 5-ROU.

For systems collecting one or fewer routine samples per month, a minimum of five (5) routine sampling sites with three (3) repeat sampling sites for each routine sample locations must be listed.

For systems collecting more than one routine sample per month, a minimum of five (5) routine sampling sites with two (2) repeat sampling sites for each routine sample location must be listed. Repeat sample sites are to be located within five (5) service connections upstream and downstream of the routine sample site.

All sample locations should be marked in some way with the Sample ID or location address, i.e., the code painted on the sampling location or tagged with a water proof tag so the person collecting the water sample is sure to collect the water from the correct sample locations.

- **Sample Type**

This describes what type of sample (routine or repeat) is to be collected at this location.

- **Sample Point**

This is the type of the sample location. Use the following abbreviations, when appropriate.

HB	Hose Bib (exterior)
SF	Sink Faucet
PC	Goose Neck Type Copper Tube with Pet Cock

- **Location of Sample Point**

This is the description of the area in the distribution that the sample site is located. Routine sample sites shall not be located at dead ends.

DE	Dead End (Not Recommended)
PZ	Pressure Zone
RD	Representative Distribution

- **Location Address**

  This is the actual physical location where the water sample is to be collected. If possible use a street address, i.e., 103 Good Street. If the location does not have a street address, use the nearest crossroads or use the last name of the resident, i.e., "Brown Residence." If the location is a business, please list the business name and address.

  When describing the location, keep in mind that the person collecting water samples must be able to locate the sample site from your description.

- **Months Sample Collected at This Location**

  This is the schedule for routine samples to be collected. For example, suppose two (2) sites are representative of your systems. Site No. 1 will be sampled in January, March, May, July, September, and November. Site No. 2 will be sampled in February, April, June, August, October, and December. All routine sites identified should be rotated to allow sampling at least every 3 months.

BACTERIOLOGICAL SAMPLE SITING PLAN FOR SMALL WATER SYSTEMS

System No.:	System Name:	
PWS Classification:	No. Monthly Users: Daily Users:	List all Active Sources that may need to be sampled for each Total Coliform Positive:
No. Active Service Connections:	Sampling Frequency:	
Name of Trained Sampler:	Analyzing Lab:	
Person responsible to report coliform-positive samples to CDPH:		Day/Evening Phone No:
Signature of Water System Representative:		Date:

Sample ID	Sample Type	Sample Point	Location of Sample Point	Address of Sample Point	Months Sample Collection at this Location
1-ROU	Routine				
1-REP1	Repeat				Repeat Sample Only
1-REP2	Repeat				Repeat Sample Only
1-REP3 *	Repeat				Repeat Sample Only
2-ROU	Routine				
2-REP1	Repeat				Repeat Sample Only
2-REP2	Repeat				Repeat Sample Only
2-REP3	Repeat				Repeat Sample Only
3-ROU	Routine				
3-REP1	Repeat				Repeat Sample Only
3-REP2	Repeat				Repeat Sample Only
3-REP3	Repeat				Repeat Sample Only
4-ROU	Routine				
4-REP1	Repeat				Repeat Sample Only
4-REP2	Repeat				Repeat Sample Only
4-REP3	Repeat				Repeat Sample Only
5-ROU	Routine				
5-REP1	Repeat				Repeat Sample Only
5-REP2	Repeat				Repeat Sample Only
5-REP3	Repeat				Repeat Sample Only

If the water system has one or more total coliform-positive samples, at least five routine samples will be collected the following month.

If chlorine is being used, is it used on a continuous basis? Yes ☐ No ☐

*** May be a source sample to satisfy the triggered source monitoring requirement under the Ground Water Rule**

CROSS-CONNECTION CONTROL
NON-COMMUNITY WATER SYSTEMS
SWRCB DDW - FRESNO DISTRICT

Purpose of Cross-Connection Control Program

Water provided by a public water system may be contaminated via cross-connections within the user's distribution system. The purpose of the cross-connection control program is to eliminate actual cross-connections and to reduce the hazard of potential cross-connections. This is accomplished by identifying actual and potential cross-connections and either installing appropriate backflow prevention assemblies or ensuring that water-using equipment is installed in accordance with plumbing code requirements and good practice.

What are cross-connections?

Cross-connections are unprotected connections between a potable water system and any source or system containing unapproved water or a substance, which is not safe. Examples of cross-connections include:

1. Improperly installed irrigation systems (which may allow back siphoning of stagnant, bacterially contaminated water into the piping system) or premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are or can be injected.
2. Improperly plumbed water-using devices such as hot tubs, boilers or commercial dishwashers.
3. Irrigation systems served by an auxiliary source, such as an unapproved well or a creek. Such systems, if connected to the drinking water system, create a potential for contamination via cross-connections.
4. Interconnections between the potable system and a non-potable system.

How to Comply

For Non-community water systems, the program consists of identification of hazards and protection of the system from these hazards. The program is to be adapted to the size and complexity of the system. The following are the required elements and necessary actions:

1. Identification of Hazards -This consists of a review of the system facilities to identify areas of potential contamination via cross-connections. A survey of the system is to be conducted with documentation of the findings. Any facilities that handle wastewater or hazardous liquids require special evaluation to ensure protection of the potable system from contamination.
2. Protection of System -Taking action to abate the potential cross-connection by ensuring compliance with plumbing codes, installing and maintaining appropriate backflow prevention assemblies and other means. This includes annual testing and repair or replacement as needed.

Completion and Documentation

Attached is additional information and forms that you can use to help guide you through this program. A survey of the system is to be conducted by a qualified person. Documentation of the survey findings is to be maintained and submitted to the Division when requested.

Attachments - Information and forms for surveys

Notes:
1. Regulatory Authority: Pursuant to Section 7584 of the California Code of Regulations, which states, "The water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program".
2. Applicability: Non-community water systems

ELEMENTS OF A CROSS-CONNECTION CONTROL PROGRAM
SWRCB DDW - FRESNO DISTRICT

When implementing a Cross-Connection Control Program, the water supplier or health agency should follow an organized plan. The following items should be included as a minimum:

7584. Responsibility and Scope of Program
The water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program. The program, or any portion thereof, may be implemented directly by the water supplier or by means of a contract with the local health agency, or with another agency approved by the health agency. The water supplier's cross-connection control program shall for the purpose of addressing the requirements of Sections 7585 through 7605 include, but not limited to, the following elements:

(a) The adoption of operating rules or ordinances to implement the cross-connection program.

A public water supplier shall enact an ordinance or rule of service outlining the cross-connection control program and providing enforcement authority.

(b) The conducting of surveys to identify places where cross-connections are likely to occur.

Water utilities do not have any responsibility for controlling or abating cross-connections on a user's premises. All existing facilities where potential cross-connections are suspected, however, shall be listed and inspected or reinspected on a priority basis, where feasible. All applications for new services or for enlarging existing services or changing of occupant shall be reviewed or screened for cross-connect1ons hazards Surveys are intended to be conducted by a person certified by AWWA or ABPA as a cross-connection specialist. A list of persons that have this certification may be obtained by contacting AWWA at (909) 481-7200, ABPA at http://www.abpa.org/, or by contacting the CDPH-Fresno District office.

(c) The provision of backflow protection at the user's connection or within the user's premises or both.

Adequate provisions for implementation and enforcement of backflow protection where needed including the shutting off service when necessary

(d) The provision of at least one person trained in cross-connection control to carry out the cross-connection program.

Specific units of the health agency and/or water supplier should be designated to organize and carry out the cross-connection control program. The personnel in those units should be trained as to the causes and hazards of unprotected cross-connections.

(e) The establishment of a procedure or system for testing backflow preventers.

A list of approved backflow preventers and list of certified testers should be made available to each water user required to provide backflow protection.

The list may include backflow devices approved by University of Southern California, Foundation for Cross-Connection Control and IAPMO, which may be found on the SWRCB website at the following address:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publications.shtml.

The List of certified testers may be lists developed by the American Water Works Association and local county health agencies.

Backflow preventers should be tested at least yearly or more often as required by the health agency or water supplier.

(f) The maintenance of records of locations, tests and repairs of backflow preventers

Adequate records should be kept and filed for reference. These records should include, in addition to the name of the owner of the premises, the:

a) Date of inspection
b) Results of inspection
c) Required protection
d) List of all backflow preventer devices in the system
e) Test and maintenance reports
f) All correspondence between the water supplier, the local health authority, and the consumer
g) Records must be maintained for a minimum of three years

Records of inspection and testing should be evaluated to determine if:

a) Devices are frequently or sufficiently reviewed to detect failure.
b) There are unusual feature of a particular model of device or component.
c) Cause of failure can be eliminated.

A program should be established to notify the water user when his backflow preventer must be tested. (A minimum of once each year is required.) After installation or repair, a backflow preventer should be tested and approved before it is accepted.

7605. Testing and Maintenance of Backflow Preventers

Regulations require the following regarding testing and maintenance of backflow prevention devices:

(a) The water supplier shall assure that adequate maintenance and periodic testing are provided by the water user to ensure their proper operation.

(b) Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or health agency.

(c) Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.

(d) Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required.

(e) The water supplier shall notify the water user when testing of backflow preventers is needed. The notice shall contain the date when the test must be completed.

(f) Reports of testing and maintenance shall be maintained by the water supplier for a minimum of three years.

GUIDELINES FOR CROSS-CONNECTION CONTROL FOR IRRIGATION SYSTEMS

Summary: Public water systems must be protected from actual and potential cross-connections between irrigation systems and domestic water systems. This is accomplished by ensuring that the irrigation system is installed in accordance with the requirements of the Uniform Plumbing Code with appropriate backflow prevention devices.

Special Conditions: For systems with an unapproved auxiliary source serving the irrigation system, additional protective action is necessary to guard against introduction of water from the auxiliary source into drinking water system. The following actions must be taken to guard against this hazard:

1. Identify all interties between the domestic system and the irrigation system.

2. Either disconnect these interties or install approved backflow prevention devices at each intertie. A Reduced Pressure Principle backflow prevention device is the type of device, which is to be installed.

3. Verify that there are no other interconnections between the domestic and irrigation systems. This is accomplished by draining the irrigation system and verifyling that it does not refill with water from the domestic system through an undetected cross-connection. This procedure should be repeated on a period basis (once every three months).

Records: Maintain written records of dates of tests, procedures, results and corrective actions taken.

CROSS-CONNECTION SURVEY SUMMARY FORM
NON-COMMUNITY WATER SYSTEMS

System Name _____ Number_____

Date of Survey _____

Name of person performing survey _____

Qualifications of person performing survey _____

Description of Survey (Elements of survey, how conducted, hazards identified):

Actions taken (Include description of corrections, backflow prevention assemblies installed):

Long-term (Include description of who will ensure ongoing protection of the system from cross-connections and testing of backflow prevention assemblies):

Other (Include other elements of program):

Name of person completing this report_____ Date _____

Signature _____

STATE OF CALIFORNIA

APPLICATION
FOR
DOMESTIC WATER SUPPLY PERMIT AMENDMENT
FROM

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

Address: _____

System Name: _____

System Number: _____

TO: State Water Resources Control Board
Division of Drinking Water
Southern California Field Operations Branch
Fresno 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 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to _____
(Applicant must state specifically what is being applied for - whether to construct new works, make alterations or additions in works or sources, or change or modify treatment.)

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: _____
Signature: _____
Title: _____
Address: _____
_____
Telephone: _____

Dated: _____

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(s), storage tanks (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 conducts 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.

A. Visual inspection of **CHLORINATOR PUMP** and disinfection reservoir (**WEEKLY / MONTHLY**).

1. Inspect the pump for proper operation.
2. Inspect the disinfectant in the reservoir for concentration and adequate volume for the operational period (record results).
3. 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).

1. Record the results (**WEEKLY / MONTHLY**, on the Monthly Chlorination Report).
2. Determine if an adequate level of disinfectant is maintained.
   a. If disinfectant level is low, determine the reason and correct.
   b. If no measurable disinfectant, notify owner, determine reason, and remedy. If no disinfectant for 24 hours, notify Division.

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.

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:

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 = $\frac{10{,}000 \times (\quad) \times (\quad)}{(\quad) \times (\quad)}$ =

Attachment G

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):

_____

_____

_____

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_____

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

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Prepared by: _____ Date: _____

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

Attachment I

Monthly Chlorination Report

System Name: _____

System No.: _____

Month/Year: _____

Source Name: _____

_____
Chief Operator Signature and Date

Day	Time of Visit	Well Meter Reading	Chlorine Solution Strength	Chlorine Solution in Tank (gallons)	Chlorine Residual at injection point	Chlorine Residual at furthest point in distribution system			Remarks - Notes
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
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22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
Total									