



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

January 6, 2016

System No. 4600019

Certified Mail/Return Receipt

No. 7012 3460 0003 1113 2110

Tim Butler, Chairman
Sierra County Water Works District #1
P.O. Box 24
Calpine, CA 96124

TRANSMITTAL OF COMPLIANCE ORDER NO. 01-02-16R-010

The State Water Resources Control Board Division of Drinking Water has issued the Sierra County Water Works District #1 – Calpine a compliance order, which is attached.

If you have any questions regarding this matter, please call Stephen Rooklidge at (530) 224-2413 or me at (530) 224-4800.

A handwritten signature in cursive script, appearing to read "Richard L. Hinrichs, for".

Michael J. McNamara, P.E.
Lassen District Engineer
Drinking Water Field Operations Branch

cc: Bruce Burton, Assistant Deputy Director, Northern California Drinking Water Field Operations
Richard L. Hinrichs, Chief, Northern California Section

Enclosure: Compliance Order 01-02-15R-002

SJR \ 4600019 Sierra Co. WWD#1-Calpine \ File: Enforcement

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

364 Knollcrest Drive, Suite 101, Redding, CA 96002 | www.waterboards.ca.gov

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

TO: Sierra County Water Works District #1 - Calpine
P.O. Box 25
Calpine, CA 96124

Attn: Tim Butler, Chairman of the Board

COMPLIANCE ORDER NO. 01-02-16R-010
FOR
VIOLATION OF HEALTH AND SAFETY CODE SECTION 116655(a)(1)
AND THE PRIMARY DRINKING WATER STANDARD FOR ARSENIC
Public Water System No. 4600019
Issued on January 6, 2016

The State Water Resources Control Board (hereinafter "Board"), acting by and through its Division of Drinking Water (hereinafter "Division") and the Deputy Director for the Division (hereinafter "Deputy Director"), hereby issues this compliance order (hereinafter "Order") pursuant to Section 116655 of the California Health and Safety code (hereinafter "CHSC") to Sierra County Water Works District #1 – Calpine (hereinafter "District") for violation of CHSC Section 116555(a)(1) and Title 22, California Code of Regulations (hereinafter "CCR"), Section 64431.

APPLICABLE AUTHORITIES**CHSC, Section 116555(a)(1) states in relevant part:**

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

- (1) Complies with primary and secondary drinking water standards.

CHSC, Section 116655 states in relevant part:

(a) Whenever the department determines that any person has violated or is violating this chapter, or any permit, regulation, or standard issued or adopted pursuant to this chapter, the director may issue an order doing any of the following:

- (1) Directing compliance forthwith.
- (2) Directing compliance in accordance with a time schedule set by the department.
- (3) Directing that appropriate preventive action be taken in the case of a threatened violation.

(b) An order issued pursuant to this section may include, but shall not be limited to, any or all of the following requirements:

- (1) That the existing plant, works, or system be repaired, altered, or added to.
- (2) That purification or treatment works be installed.
- (3) That the source of the water supply be changed.
- (4) That no additional service connection be made to the system.
- (5) That the water supply, the plant, or the system be monitored.
- (6) That a report on the condition and operation of the plant, works, system, or water supply be submitted to the department.



Section 64431 of the Title 22 CCR states in relevant part:

(a) Public water systems shall comply with the primary MCLs in Table 64431-A as specified in this article.

Table 64431-A

Maximum Contaminant Levels

Inorganic Chemicals

<u>Chemical</u>	<u>MCL, mg/L</u>
Arsenic	0.010

STATEMENT OF FACTS

The Sierra County Water Works District #1 (hereinafter District) serves domestic water to an unincorporated community known as Calpine, which consists primarily of permanent residential homes, rental properties, and a small number of commercial establishments. The community water system supplies water for domestic purposes to a residential population of approximately 225 persons through 122 service connections. The sources of supply for the water system include two groundwater wells, known as Well 1 and Well 2. The Water System operates under Water Supply Permit No. 01-02-93(P)46014 issued on December 31, 1993.

As more fully set forth below, the Division is informed and believes that the District is in violation of the primary standard for arsenic. On February 26, 2009, the Division issued Compliance Order No. 01-02-09(O)004 to the District for violation of the primary standard for arsenic supplied to its customers from Well 2. On November 18, 2011, the Division updated the Compliance Order by issuing a new Compliance Order No. 01-02-11(O)002 to the District for the continued violation of the

1 primary standard for arsenic supplied to its customers from Well 2. The Compliance
2 Order No. 01-02-11(O)002 directed the District to: 1) cease and desist from serving
3 water to customers which is in violation of the primary standard for arsenic; 2) submit
4 to the Division, by May 1, 2012, an engineering evaluation of project alternatives, a
5 recommended project alternative for attaining compliance with the arsenic primary
6 standard, and a project schedule; 3) provide quarterly public notifications to its
7 customers informing them of the continued violation of the primary standard for
8 arsenic; 4) continue to collect and analyze water samples from Well 1 and Well 2 for
9 arsenic on a quarterly basis; 5) submit a written response indicating the District's
10 willingness to comply with the Compliance Order directives; and 6) provide quarterly
11 progress reports for achieving compliance. The District has substantially complied
12 with all directives except Directives 1 and 2.

13
14 In June 2012, the Division received a draft pilot study protocol from the District's
15 engineer for the evaluation of various adsorptive media for the removal of arsenic
16 from Well 2. The pilot study equipment was installed and was operational by
17 January 2013 and continued until January 2014. The engineer issued the pilot study
18 test report on June 13, 2014. In summary, the report recommended two comparable
19 adsorptive media products based on predicted operating costs and performance. The
20 report also estimated that the operating costs alone for a full scale treatment system
21 on Well 2 would increase each customer's water bill by \$5.00 per month. No estimate
22 on the capital expense was given. Since that time, the District's engineer has also
23 performed a pilot study on Well 2 using a co-precipitation filtration technology with
24 greensand filter media and a ferric chloride oxidant. The results of this pilot testing
25 showed the water was not amenable to arsenic treatment utilizing this method, so the
26 successfully piloted alternative of using Bayoxide E33 media would be the proposed
27 method of compliance.

1 Compliance Order No. 01-02-15(R)002 was issued on March 4, 2015 for the
2 continued violation of the primary standard for arsenic supplied to its customers from
3 Well 2. The Compliance Order No. 01-02-11(O)002 directed the District to: 1) cease
4 and desist from serving water to customers which is in violation of the primary
5 standard for arsenic by November 1, 2016; 2) submit to the Division a Corrective
6 Action Plan that includes a schedule of completion for bringing the District into
7 compliance by November 1, 2016; 3) submit the Corrective Action Plan to the Division
8 by April 1, 2015; 4) timely perform each of the Directives; 5) report quarterly activity
9 toward completion of the Corrective Action Plan to the Division; 6) provide quarterly
10 public notifications to its customers informing them of the continued violation of the
11 primary standard for arsenic; 7) provide the Division proof of notification; 8) ensure
12 public notification for each quarter that exceeds the arsenic Maximum Contaminant
13 Level (MCL); 9) continue to collect and analyze water samples from Well 1 and Well 2
14 for arsenic on a quarterly basis; 10) demonstrate to the Division the water delivered
15 by the District complies with the arsenic MCL; 11) notify the Division of performance
16 results.

17
18 On June 10, 2015, the District submitted a Corrective Action Plan that indicated
19 construction of the treatment facility would be completed before November 1, 2016. A
20 revised schedule of completion was submitted on November 19, 2015 that described
21 the final construction plans for the project would be submitted to the Division by
22 December 15, 2015. This deadline was not achieved. The revised schedule
23 presented a construction timeline to the Division that describes the renovation of the
24 existing pump building to house the pre-fabricated treatment system will be initiated
25 with material purchases in February 2016 and construction completion in July 2016.
26 Testing of the new treatment system will be completed in September 2016.

27

1 Since the 1st quarter of 2009, the District has continued to complete quarterly arsenic
 2 sampling of Well 1 and Well 2, with results as follows:

3

4 **Table 1: Well 01 and Well 02 Arsenic Monitoring Results**

5	Well 01	Well 01	Well 02	Well 02	
6	Arsenic	Arsenic	Arsenic	Arsenic	
7	Period	Result, ppb	RAA, ppb	Result, ppb	RAA, ppb
8	1Q2009	7.5	8.9	21.0	20.63
9	2Q2009	non-detect	6.8	non-detect	14.38
10	3Q2009	7.80	6.00	18.00	14.38
11	4Q2009	12.00	6.83	21.00	15.00
12	1Q2010	11.00	7.70	21.00	15.00
13	2Q2010	---	7.70	---	15.00
14	3Q2010	---	7.70	---	15.00
15	4Q2010	7.30	9.53	20.00	20.00
16	1Q2011	6.50	9.20	18.00	20.00
17	2Q2011	---	9.20	---	20.00
18	3Q2011	8.00	8.20	18.00	19.25
19	4Q2011	6.00	6.95	16.00	18.00
20	1Q2012	8.00	7.13	21.00	18.25
21	2Q2012	---	7.13	---	18.25
22	3Q2012	---	7.13	---	18.25
23	4Q2012	6.00	7.00	16.00	17.25
24	1Q2013	7.00	6.75	16.00	17.25
25	2Q2013	7.00	7.00	15.00	17.00
26	3Q2013	8.00	7.00	18.00	16.25
27	4Q2013	7.00	7.25	20.00	17.25



	Well 01	Well 01	Well 02	Well 02	
	Arsenic	Arsenic	Arsenic	Arsenic	
3	Period	Result, ppb	RAA, ppb	Result, ppb	RAA, ppb
4	1Q2014	6.00	7.00	15.00	17.00
5	2Q2014	7.00	7.00	29.00	20.50
6	3Q2014	9.00	7.25	21.00	21.25
7	4Q2014	9.00	7.75	28.00	23.25
8	1Q2015	9.00	8.50	28.00	26.50
9	2Q2015	8.00	8.75	10.00	21.75
10	3Q2015	9.00	8.75	20.00	21.50

11 RAA – Running Annual Average

12 ppb – parts per billion

13

14 As evident from the table above, the District’s Well 2 continues to produce water that
 15 exceeds the arsenic MCL of 10 ppb. Also noted from the table above is the fact that
 16 Well 1’s RAA for arsenic has remained in compliance with the primary standard.

17

18

DETERMINATIONS

19

20 Based on the above Statement of Facts, the Division determines that the District has
 21 violated CHSC, Section 116555 and Section 64431 in that the water produced by
 22 Well 02 during the 4th quarter of 2014, exceeded the arsenic MCL as shown in Table
 23 1 above, and further has determined that said violation has continued from the 1st
 24 quarter of 2009 through the date of this Order.

25

26

DIRECTIVES

27

1 Pursuant to Section 116655, Article 9, Chapter 4, Part 12, Division 104 of the CHSC,
2 the Division and its Director hereby orders and directs the District:

3
4 1. On or before November 1, 2016, cease and desist from failing to comply
5 with the CHSC Section 116555(a)(1) and (3) and Section 64431 of Title 22, CCR, by
6 ensuring that the District's water system is provided with a reliable and adequate
7 source of pure, wholesome, healthful, and potable water that is in compliance with all
8 primary drinking water standards.

9
10 2. By February 1, 2016, the District shall submit a draft of the engineering
11 plans and specifications for review of the method used to achieve compliance of the
12 primary drinking water standard.

13
14 3. By March 1, 2016, the District shall submit the final engineering plans and
15 specifications of the method used to achieve compliance of the primary drinking water
16 standard.

17
18 4. By September 1, 2016, the District shall submit proof of completion and
19 treatment efficiency of the method used to achieve compliance of the primary drinking
20 water standard.

21
22 5. Public notification shall continue to be given each calendar quarter that the
23 four-quarter RAA from the Compliance Point for arsenic exceeds the MCL.

24
25 6. In accordance with Section 64442(g)(3) of Title 22, CCR, the District shall
26 continue to collect quarterly samples from Well 1 and Well 2 for arsenic analyses.



1 The analytical results shall be reported to the Division no later than the 10th day
2 following the month in which the samples were collected.

3

4 The Division reserves the right to make such modifications to this Compliance Order,
5 as it may deem necessary to protect public health and safety. Such modifications
6 may be issued as amendments to this Compliance Order and shall be effective upon
7 issuance.

8

9 This Compliance Order supersedes and replaces Compliance Order 01-02-15R-002,
10 issued on March 4, 2015.

11

12 All submittals required by this Order shall be submitted to the Division at the following
13 address:

14

15 Michael J. McNamara, P. E.
16 Lassen District Engineer
17 Division of Drinking Water
18 State Water Resources Control Board
19 364 Knollcrest Drive, Suite 101
20 Redding, CA 96002

21

22 As used in the Order, the date of issuance shall be the date of this Order; and the
23 date of service shall be the date of service of this Order, personal or by certified mail,
24 on the District.

25

26 The Division reserves the right to make such modifications to this Order and/or to
27 issue such further order(s) as it may deem necessary to protect public health and



1 safety. Such modifications may be issued as amendments to this Order and shall be
2 deemed effective upon issuance.

3
4 Nothing in this Order relieves the District of its obligation to meet the requirements of
5 the California Safe Drinking Water Act (SDWA), or any regulation, standard, or permit
6 issued thereunder.

7
8 The State of California shall not be liable for any injuries or damages to persons or
9 property resulting from acts or omissions by the District, its employees, agents, or
10 contractors in carrying out activities pursuant to this Order, nor shall the State of
11 California be held as a party to any contract entered into by the Company or its
12 agents in carrying out activities pursuant to this Order. By issuance of this Order, the
13 Division does not waive its right to take any further or additional enforcement action(s)
14 against the District.

15 16 **FURTHER ENFORCEMENT ACTION**

17
18 The California SDWA authorizes the Board to: issue a citation with assessment of
19 administrative penalties to a public water system for violation or continued violation of
20 the requirements of the California SDWA or any regulation, permit, standard, citation,
21 or order issued or adopted thereunder including, but not limited to, failure to correct a
22 violation identified in a citation or compliance order. The California SDWA also
23 authorizes the Board to take action to suspend or revoke a permit that has been
24 issued to a public water system if the public water system has violated applicable law
25 or regulations or has failed to comply with an order of the Board; and to petition the
26 superior court to take various enforcement measures against a public water system



1 that has failed to comply with an order of the Board. The Board does not waive its
2 right to take any further or additional enforcement action(s) against the District.

3
4 The District's failure to comply with any directive set forth in the Order by the time
5 prescribed herein may result in further administrative penalties in the amount of
6 \$1,000 per day per violation, pursuant to CHSC, Section 116650, and/or civil
7 penalties in the amount of up to \$25,000 per day per violation pursuant to CHSC,
8 Section 116725.

9
10 **PARTIES BOUND**

11
12 This Order shall apply to and be binding upon the District, its officers, directors,
13 agents, employees, contractors, successors, and assignees.

14
15 **SEVERABILITY**

16
17 The directives of this Order are severable, and the District shall comply with each and
18 every provision thereof notwithstanding the effectiveness of any provision.

19
20 1/6/2016

21 Date

22 *Richard L. Hinrichs*

23 Richard L. Hinrichs, P.E., Chief
24 Northern California Section
25 Division of Drinking Water
26 State Water Resources Control Board



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