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GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

April 21, 2015

Mr. T. Mark Hightower
NASA Ames Research Center
M/S 204-15, N-204, Room 102
Moffett Field, CA 94035

Dear Mr. Hightower:

CITATION NO. 02-17-15C-010
NASA Ames Research Center, Water System No. 4300997

Enclosed is a citation issued to NASA Ames Research Center (NASA) for failure to comply with Section 64650 (b), Section 64652 (a) and Section 64654 (a), Title 22 of the California Code of Regulations. The attached citation consists of seven sections: Applicable Authorities, Statement of Facts, Determination, Directives, Parties Bound, Severity and Further Enforcement Action.

If you have any questions regarding this letter, please contact me at (510) 620-3453.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric Lacy".

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

cc: Santa Clara County Environmental Health

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STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

TO: NASA Ames Research Center
M/S 204-15, N-204, Room 102
Moffett Field, CA 94035

Attn: Mr. T. Mark Hightower

**CITATION FOR VIOLATION OF CALIFORNIA CODE OF REGULATIONS,
TITLE 22, SECTION 64650 (b), SECTION 64652(a) & SECTION 64654 (a)
WATER SYSTEM NO. 4300997
CITATION NO. 02-17-15C-010
Issued on April 21, 2015**

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 (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 a citation to the NASA Ames Research Center (hereinafter, NASA) (M/S 204-15, N-204, Room 102, Moffett Field, CA 94035) for the following violations:

- 1 1. California Code of Regulations, Title 22, Section 64650, subsection (b)
- 2 2. California Code of Regulations, Title 22, Section 64652, subsection (a)
- 3 3. California Code of Regulations, Title 22, Section 64654, subsection (a)

4

5 **APPLICABLE AUTHORITIES**

6

7 **Section 116650 of California Health and Safety Code provides:**

8

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

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

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

21 (d) A citation may include the assessment of a penalty as specified in
22 subdivision (e).

23 (e) The Division may assess a penalty in an amount not to exceed one
24 thousand dollars (\$1,000) per day for each day that a violation occurred, and for
25 each day that a violation continues to occur. A separate penalty may be assessed for
26 each violation.

27



1 California Code of Regulations, Title 22, Section 64650, subsection (b) provides
2 in relevant part:

3

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

8

9 California Code of Regulations, Title 22, Section 64652, subsection (a) provides,
10 in relevant part:

11

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

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

18 (2) A total of 99.99 percent reduction of viruses through filtration and
19 disinfection; and

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

21

22 California Code of Regulations, Title 22, Section 64654, subsection (a) provides,
23 in relevant part:

24

25 (a) All approved surface water utilized by a supplier shall be provided with
26 continuous disinfection treatment sufficient to insure that the total treatment process
27 provides inactivation of *Giardia lamblia* cysts and viruses, in conjunction with the



1 removals obtained through filtration, to meet the reduction requirements specified in
2 section 64652(a).

3
4 **STATEMENT OF FACTS**

5
6 NASA Ames Research Center is a community water system that provides potable
7 water to approximately 5,300 persons through 300 metered connections. Water
8 supply for the system is treated surface water purchased from the San Francisco
9 Public Utilities Commission (SFPUC) Regional Water System (RWS).

10
11 The SFPUC RWS delivers treated drinking water to 2.6 million consumers in the San
12 Francisco Bay Area (Bay Area). Approximately one-third of the delivered water goes
13 to retail customers in the City of San Francisco, while the remaining two-thirds goes to
14 27 wholesaler agencies in Alameda, Santa Clara, and San Mateo counties. About
15 85% of SFPUC's water comes from the Hetch Hetchy watershed in Yosemite National
16 Park, conveyed to the Bay Area through an aqueduct system. The Hetch Hetchy
17 water supply meets the criteria for avoiding filtration and receives required disinfection
18 treatment before reaching the Bay Area. This source is considered "finished water,"
19 ready to be delivered to consumers. About 15% of RWS' water comes from the
20 Alameda and Peninsula watersheds within the Bay Area. Calaveras and San
21 Antonio Reservoir water is treated at the Sunol Valley Water Treatment Plant
22 (SVWTP). San Antonio Reservoir, located near the Town of Sunol, stores a blend of
23 surface runoff from the Alameda Watershed and from the Hetch Hetchy aqueduct.
24 Because of the contribution from local surface runoff, California's Surface Water
25 Treatment Rule (SWTR) requires that the water stored in San Antonio Reservoir
26 receive multi-barrier treatment (filtration and disinfection) before being delivered to
27 customers.



1 On March 3, 2015, at approximately 4:50 p.m., RWS staff improperly operated the
2 valves at the Sunol Valve Lot that allowed untreated water from San Antonio
3 Reservoir to enter the RWS (finished water) transmission system. Untreated water
4 from San Antonio Reservoir passed into the regional water system for an estimated
5 20 minutes. The untreated water entered into and was served to consumers by NASA
6 on March 4, 2015.

7
8 **DETERMINATION**
9

10 The Division has determined that NASA Ames Research Center failed to comply with
11 the California Code of Regulations, Title 22, Sections 64650 (b), 64652 (a), and
12 64654 (a). Specifically, NASA failed to provide multibarrier treatment to the raw
13 surface water from San Antonio Reservoir to reliably ensure a total of 99.9 percent
14 reduction of *Giardia lamblia* cysts through filtration and disinfection; a total of 99.99
15 percent reduction of viruses through filtration and disinfection; and a total of 99
16 percent removal of *Cryptosporidium* through filtration.

17
18 The Division has also determined that NASA is required to notify the customers that
19 received the untreated surface water of the violation of treatment technique
20 requirements for surface water treatment. Under the Public Notification Rule, the
21 treatment technique violations are categorized as Tier 2 violations. California Code of
22 Regulations, Title 22, Section 64463.4 requires that the notification be conducted
23 within 30 days after the public water system learns of the violation. NASA was
24 required to post the notice on its website and mail or directly deliver the notice to the
25 impacted customers by April 4, 2015.

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DIRECTIVES

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NASA Ames Research Center is hereby directed to take the following actions:

1. Forthwith, NASA shall cease and desist from failing to comply with the California Code of Regulations, Title 22, Sections 64650 (b), 64652 (a), and Section 64654 (a).
2. Within 60 days of receipt of this Citation, NASA shall produce and provide to the Division a Corrective Action Plan (CAP). The CAP shall describe measures NASA will implement to prevent water not meeting the SWTR drinking water standards from entering into and being served by the water system. The CAP shall also include an evaluation of the sustainability of the water supply and/or storage in each pressure zone in the event the SFPUC RWS water supply is unavailable. From the evaluation, NASA shall make recommendations to improve the reliability of the water system.
3. Within 30 days of receipt of this Citation, NASA shall provide to the Division certification of public notification using the enclosed form (Attachment No. 1). A copy of the notice shall be attached to the certification form.
4. NASA Ames Research Center shall include information regarding the SWTR violation identified in this Citation in the 2015 Consumer Confidence Report, which must be completed and distributed to all customers by July 1, 2016.
5. Within 30 days of receipt of this Citation, NASA shall agree in writing to comply with all directives of this Citation.

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

4
5 Nothing in this Citation relieves NASA Ames Research Center of its obligation to meet
6 the requirements of the California Safe Drinking Water Act, or of any regulation,
7 permit, standard, or order issued or adopted thereunder.

8
9 All submittals required by this Citation shall be submitted to the Division at the
10 following address:

11
12 Eric Lacy, P.E.
13 District Engineer
14 State Water Resources Control Board
15 Division of Drinking Water
16 850 Marina Bay Parkway
17 Building P, 2nd Floor
18 Richmond, CA 94804

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22
23 **PARTIES BOUND**

24 This Citation shall apply to and be binding upon NASA, its officers, directors,
25 shareholders, agents, employees, contractors, successors, and assignees.

26
27 **SEVERABILITY**

The Directives of this Citation are severable, and NASA shall comply with each and every provision thereof, notwithstanding the effectiveness of any other provision.

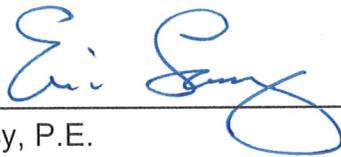
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FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the Board 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 Board 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 Board; 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 Board. The Board does not waive any further enforcement action by issuance of this citation.

April 21, 2015

Date



Eric Lacy, P.E.
District Engineer
Division of Drinking Water
State Water Resources Control Board

Attachment 1: Proof of Notification

cc: Santa Clara County Environmental Health

