

# STATE OF COLORADO

Bill Ritter, Jr., Governor  
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department  
of Public Health  
and Environment

April 1, 2009

PWSID# CO-0145150  
Eureka Water Company  
Attention: Elaine C. Bolling  
16619 Hwy 50  
Rocky Ford, CO 81067

Certified Mail Number: 7007 0220 0001 0160 0127

**RE: Service of Amendment to Enforcement Order Dated March 28, 2000**

Dear Ms. Bolling:

Eureka Water Company is hereby issued the enclosed amendment to the Enforcement Order that was issued to Eureka Water Company on March 28, 2000. This order amendment is issued by the Colorado Department of Public Health and Environment's Water Quality Control Division (the "Division") pursuant to the authority given to the Division by §25-1.5-203 of the Colorado Revised Statutes.

Should you desire to discuss this matter with the Division or if you have any questions regarding the order amendment(s), please don't hesitate to contact Jackie Whelan at (303) 692-3617 or by electronic mail at [jackie.whelan@state.co.us](mailto:jackie.whelan@state.co.us).

Sincerely,

Kristi-Raye Beaudin, Legal Assistant  
Compliance Assurance and Data Management Section  
WATER QUALITY CONTROL DIVISION

- cc: Otero County Health Department  
Compliance Monitor / Drinking Water File
- ec: Dave Knope, Engineering Section, CDPHE  
Dick Parachini, Watershed Program, CDPHE  
Betsy Beaver, Facility Operators Program, CDPHE  
Shawn McCaffrey, EPA Region VIII  
Jeff Lawrence, Director Consumer Protection Division, CDPHE  
Carolyn Schachterle, OPA

Enclosures



**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL DIVISION**

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**AMENDMENT TO ENFORCEMENT ORDER DATED MARCH 28, 2000  
NUMBER TWO**

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**IN THE MATTER OF: EUREKA WATER COMPANY  
PUBLIC WATER SYSTEM IDENTIFICATION NUMBER: CO-0145150  
OTERO COUNTY, COLORADO**

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Pursuant to the authority vested in the Colorado Department of Public Health and Environment (the "Department") by §25-1-109 and §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."), which authority has been delegated to the Department's Water Quality Control Division (the "Division"), the Division hereby makes the following findings and issues the following Enforcement Order Amendment:

**GENERAL FINDINGS**

1. On March 28, 2000, the Division issued an Enforcement Order Number to Eureka Water Company citing violations of the Colorado Primary Drinking Water Regulations for failure to comply with the maximum contaminant level(s) for gross alpha particle activity and combined radium-226 and radium-228. The Enforcement Order is attached hereto as Exhibit A and is incorporated herein by reference.
2. After re-evaluating the difficulties associated with the complying with the radionuclides maximum contaminant levels and in coordination with the Division's CORADS initiative, the Division is amending Enforcement Order dated March 28, 2000, as follows:

**AMENDMENT NUMBER TWO**

3. Effective as of the issued date of this Amendment, the Enforcement Order dated March 28, 2000, is therefore amended to revise the Enforcement Order as follows:
  - A. Paragraph 6, section "Findings of Fact" is superseded and replaced with the following new paragraph 3(A)(i):
    - i. A review of the radiological monitoring data from January 1, 1994, to present provided to the Department by the System, establishes that the running annual

average of samples obtained by the System as required exceeds the maximum contaminant level of 15 picocuries per liter (pCi/L) for gross alpha particle activity or has not met the requirements to return to compliance with the maximum contaminant level.

Gross Alpha Particle Activity (in pCi/L)					
Sampling Point	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Annual Average
003-Tank 1	3Y 1993-1995 09/19/1994 30				30
003-Tank 1	3Y 1996-1998 09/15/1997 26				26
003-Tank 1	3Y 1999-2001 09/22/1999 50				50
004- Well 1	Q1 2000 Sample not submitted	Q2 2000 04/17/2000 29	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 37	33
	Q2 2000 04/17/2000 29	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 37	Q1 2001 Sample not submitted	33
	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 37	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.6	26
	Q4 2000 11/28/2000 37	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.6	Q3 2001 07/23/2001 27	27
	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.6	Q3 2001 07/23/2001 27	Q4 2001 Sample not submitted	21
	Q2 2001 5/21/2001 15.6	Q3 2001 07/23/2001 27	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	21
	Q3 2001 07/23/2001 27	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	Q2 2002 06/26/2002 22	25
	Annual 2003 12/01/2003 27				27
005-Well 2	Q1 2000 Sample not submitted	Q2 2000 04/17/2000 29	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 27	28
	Q2 2000 04/17/2000 29	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 27	Q1 2001 Sample not submitted	28
	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 27	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.1	21
	Q4 2000 11/28/2000 27	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.1	Q3 2001 07/23/2001 30	24

Gross Alpha Particle Activity (in pCi/L)					
Sampling Point	Compliance Period / Result	Annual Average			
	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.1	Q3 2001 07/23/2001 30	Q4 2001 Sample not submitted	23
	Q2 2001 5/21/2001 15.1	Q3 2001 07/23/2001 30	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	23
	Q3 2001 07/23/2001 30	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	Q2 2002 06/26/2002 18	24
	Annual 2003 12/01/2003 14				14
006-Well 3	Q1 2000 Sample not submitted	Q2 2000 04/17/2000 50	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 120	85
	Q2 2000 04/17/2000 50	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 120	Q1 2001 Sample not submitted	85
	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 120	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 41.4	81
	Q4 2000 11/28/2000 120	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 41.4	Q3 2001 07/23/2001 32	64
	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 41.4	Q3 2001 07/23/2001 32	Q4 2001 Sample not submitted	37
	Q2 2001 5/21/2001 41.4	Q3 2001 07/23/2001 32	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	37
	Q3 2001 07/23/2001 32	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	Q2 2002 06/26/2002 25	29
	Annual 2003 12/01/2003 50				50
007-Treatment Plant	Q1 2001 02/01/2001 15	Q2 2001 Sample not submitted	Q3 2001 Sample not submitted	Q4 2001 Sample not submitted	15
	Q1 2002 Sample not submitted	Q2 2002 Sample not submitted			Sample not submitted
	Annual 2003 12/01/2003 19				19
	Annual 2004 09/30/2004 17				17
	Annual 2005 9/12/2005 15				15

Gross Alpha Particle Activity (in pCi/L)					
Sampling Point	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Annual Average
	Annual 2006 Sample not submitted				Sample not submitted
	Annual 2007 10/16/2007 41				41
	Annual 2008 11/19/2008 9.3				9.3

- ii. A review of the radiological monitoring data from January 1, 1994, to present provided to the Department by the System, establishes that the running annual average of samples obtained by the System as required exceeds the maximum contaminant level of 5 pCi/L for combined radium-226 and radium-228.

Combined Radium-226 and Radium-228 (in pCi/L)					
Sampling Point	Compliance Period / Result	Annual Average			
003-Tank 1	3Y 1993-1995 09/19/1994 7.4				7
003-Tank 1	3Y 1996-1998 09/15/1997 19.4				19
003-Tank 1	3Y 1999-2001 09/22/1999 15.5				16
004- Well 1	Q1 2000 Sample not submitted	Q2 2000 04/17/2000 18.8	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 21.4	20
004- Well 1	Q2 2000 04/17/2000 18.8	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 21.4	Q1 2001 Sample not submitted R	20
004- Well 1	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 21.4	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 16.2	19
004- Well 1	Q4 2000 11/28/2000 21.4	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 16.2	Q3 2001 07/23/2001 9 (radium-226 only)	19
004- Well 1	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 16.2	Q3 2001 07/23/2001 9 (radium-226 only)	Q4 2001 Sample not submitted	16
004- Well 1	Q2 2001 5/21/2001 16.2	Q3 2001 07/23/2001 9 (radium-226 only)	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	16
004- Well 1	Q3 2001 07/23/2001 9 (radium-226 only)	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	Q2 2002 06/26/2002 17.8	18

**Combined Radium-226 and Radium-228 (in pCi/L)**

Sampling Point	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Annual Average
004- Well 1	Annual 2003 12/01/2003 18.1				18
005-Well 2	Q1 2000 Sample not submitted	Q2 2000 04/17/2000 17.4	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 23.7	21
005-Well 2	Q2 2000 04/17/2000 17.4	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 23.7	Q1 2001 Sample not submitted	21
005-Well 2	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 23.7	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.4	20
005-Well 2	Q4 2000 11/28/2000 23.7	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.4	Q3 2001 07/23/2001 8 (radium-226 only)	20
005-Well 2	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 15.4	Q3 2001 07/23/2001 8 (radium-226 only)	Q4 2001 Sample not submitted	15
005-Well 2	Q2 2001 5/21/2001 15.4	Q3 2001 07/23/2001 8 (radium-226 only)	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	15
005-Well 2	Q3 2001 07/23/2001 8 (radium-226 only)	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	Q2 2002 06/26/2002 11.2	11
005-Well 2	Annual 2003 12/01/2003 14				14
006-Well 3	Q1 2000 Sample not submitted	Q2 2000 04/17/2000 26.1	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 46	36
006-Well 3	Q2 2000 04/17/2000 26.1	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 46	Q1 2001 Sample not submitted	36
006-Well 3	Q3 2000 Sample not submitted	Q4 2000 11/28/2000 46	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 23.3	35
006-Well 3	Q4 2000 11/28/2000 46	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 23.3	Q3 2001 07/23/2001 17 (radium-226 only)	35
006-Well 3	Q1 2001 Sample not submitted	Q2 2001 5/21/2001 23.3	Q3 2001 07/23/2001 17 (radium-226 only)	Q4 2001 Sample not submitted	23
006-Well 3	Q2 2001 5/21/2001 23.3	Q3 2001 07/23/2001 17 (radium-226 only)	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	23

Combined Radium-226 and Radium-228 (in pCi/L)					
Sampling Point	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Compliance Period / Result	Annual Average
006-Well 3	Q3 2001 07/23/2001 17 (radium-226 only)	Q4 2001 Sample not submitted	Q1 2002 Sample not submitted	Q2 2002 06/26/2002 24	24
006-Well 3	Annual 2003 12/01/2003 19.2				19
007-Treatment Plant	Q1 2001 02/01/2001 11.6	Q2 2001 Sample not submitted	Q3 2001 Sample not submitted	Q4 2001 Sample not submitted	12
007-Treatment Plant	Q1 2002 Sample not submitted	Q2 2002 Sample not submitted			Sample not submitted
007-Treatment Plant	Annual 2003 12/01/2003 15.8				16
007-Treatment Plant	Annual 2004 09/30/2004 12.2				12
007-Treatment Plant	Annual 2005 9/12/2005 13.4				13
007-Treatment Plant	Annual 2006 11/27/2006 14.4				14
007-Treatment Plant	Annual 2007 10/16/2007 15				15
007-Treatment Plant	Annual 2008 11/19/2008 18				18

B. The compliance schedule specified in paragraph 1, section "Order" is superseded and replaced with the following new paragraph 3(B)(i):

i. In order to ensure long-term compliance with the maximum contaminant levels for gross alpha particle activity and combined radium-226 and radium-228, the Eureka Water Company shall evaluate and upgrade, as needed, the System's water sources and/or treatment process(es) in accordance with the following schedule:

a. By April 30, 2009, retain a qualified Professional Engineer (licensed in Colorado and experienced in drinking water systems) to evaluate and recommend radiological treatment technologies or alternate water sources to the Eureka Water Company to ensure compliance with the maximum contaminant level for gross alpha particle activity and combined radium-226 and radium-228.

- b. By October 31, 2009, submit for Department review and comment a finalized Preliminary Engineering Report for system improvements to comply with the maximum contaminant levels for gross alpha particle activity and combined radium-226 and radium-228. If an alternate water source is proposed, submit for Department review and comment a detailed description of the alternate water source along with a copy of the laboratory analyses supporting that the alternate water source is suitable.
- c. The Preliminary Engineering Report submittal package must be developed consistent with the Colorado Drinking Water Preliminary Engineering Report Guidance & Review Checklist Form. (see [http://www.cdphe.state.co.us/wq/opa/pdf/19\\_CPERGuideChecklistDW.pdf](http://www.cdphe.state.co.us/wq/opa/pdf/19_CPERGuideChecklistDW.pdf))
- d. If an alternate water source is proposed, submit for Department review and comment a detailed description of the alternate water source along with a copy of the laboratory analyses supporting that the alternate water source is suitable.
- e. The Preliminary Engineering Report (if applicable) must clearly identify the specific treatment technology the Eureka Water Company will use to ensure compliance with the maximum contaminant levels for gross alpha particle activity and combined radium-226 and radium-228.
- f. The Preliminary Engineering Report (if applicable) must include a process flow schematic of the distribution system from wellheads to points of use, including flow rates, treatment facilities, storage tanks and all service connections supplied by the wells. Alternative treatment locations for the selected treatment process or processes must be evaluated with a recommended location selection. The process flow schematic information and evaluation must be included to ensure all water from the System is treated.
- g. The Preliminary Engineering Report (if applicable) must include a proposal for management of residuals from the treatment technology selected.
- h. The Preliminary Engineering Report submittal package must include design calculations showing the proposed treatment system is properly sized and chlorine contact times can be met for expected flow rates.

{Please note that, prior to construction, the Department must give final approval to any modifications to the System's water source or treatment process. The Department will not perform a detailed review and final approval of any proposed modifications until the final design plans and specifications have been received pursuant to paragraph 4(B)(i)(k) below.}

- i. By February 28, 2010, submit for Department review and comment the final Design Report for the Eureka Water Company System improvements to comply with the maximum contaminant levels for gross alpha particle activity and combined radium-226 and radium-228.
  - j. By August 1, 2010, submit Final Design Plans and Specifications for the System improvements for Department review and approval in accordance with the State of Colorado Design Criteria for Potable Water Systems.
  - k. The Final Design Plans and Specifications submittal package must include specifications for treatment equipment and/or chemical additives that come in contact with the water that indicate ANSI standards 60 and 61 are met (NSF certification).
  - l. By October 15, 2011, complete construction/implementation of the Department approved System improvements to ensure long-term compliance with the maximum contaminant levels gross alpha particle activity and combined radium-226 and radium-228.
  - m. By December 1, 2011, submit the Professional Engineer's Certification that the System improvements to comply with the maximum contaminant levels for gross alpha particle activity and combined radium-226 and radium-228 were constructed/installed as approved by the Department.
- C. The following new paragraphs are incorporated into the Enforcement Order dated March 28, 2000:
- i. By no later than April 30, 2009, the Eureka Water Company shall complete an evaluation to determine appropriate interim measures to ensure that the System is providing the best possible quality of water available until the System implements improvements to ensure long-term compliance with the radiological maximum contaminant levels. The Eureka Water Company shall submit a written report of the results of this evaluation to the Division for review and comment. Implementation of the interim measures identified by the Eureka Water Company shall become a condition of this Enforcement Order unless notified by the Division, in writing, that alternate or additional interim measures are appropriate. If the Division imposes alternate or additional interim measures, they shall also become a condition of this Enforcement Order.
  - ii. By no later than March 31, 2009, and every three (3) months thereafter, the Eureka Water Company shall issue a public notice in accordance with 5 CCR 1003-1, Article 9.2 for each radiological maximum contaminant level violation identified in this Enforcement Order until the Eureka Water Company has effectively addressed and returned to compliance with the radiological maximum contaminant levels outlined in 5 CCR 1003-1, §2.6, Table 2-7. Within ten (10) calendar days of completion of each required public notification, the Eureka Water Company shall

submit to the Department, along with the mandatory Public Notification certification of delivery, a representative copy of notices distributed, published, posted, and/or made available to the persons served by the system and/or to the media. (Attached are copies of procedures and forms to assist you with the public notification requirements.)

iii. The Eureka Water Company shall submit "System Improvement Project - Progress Reports" to the Division every ninety (90) calendar days. The first report shall be submitted to the Division by March 31, 2009. At a minimum, each report shall clearly indicate the status of the system improvement project at the time the report is filed and outline activities to be undertaken within the next ninety (90) calendar days. Each report shall also detail any public notification provided during that period. These reports shall be required until the System has effectively addressed and returned to compliance with the radiological maximum contaminant levels outlined in 5 CCR 1003-1, §2.6, Table 2-7.

iv. All documents submitted under this Order Amendment shall use the same titles as stated in the Order Amendment, and shall reference both the number of the Order and the number of paragraph pursuant to which the document is required.

D. For all documents, plans, records, reports, and replies required to be submitted by the Order, Eureka Water Company shall submit an original and one copy (electronic is preferred) to the Division at the following address:

Colorado Department of Public Health and Environment  
Water Quality Control Division / WQCD-WQP-B2  
Compliance Assurance and Data Management Section / Enforcement Team  
Attention: Jackie Whelan  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530  
Email: [jackie.whelan@state.co.us](mailto:jackie.whelan@state.co.us)

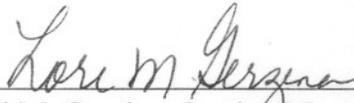
*(For any facsimile transmittals, please include a cover sheet addressed to Ms. Whelan.)*

**SCOPE OF AMENDMENT NUMBER TWO**

The scope of this Amendment Number Two to the Enforcement Order Number dated March 28, 2000, is limited to the revisions outlined above. All other terms and conditions of the Enforcement Order shall remain unchanged and in effect.

Issued at Denver, Colorado, this 31<sup>st</sup> day of March, 2009.

**FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**



Lori M. Gerzina, Section Manager  
Compliance Assurance and Data Management Section  
Water Quality Control Division

