



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 8, MONTANA OFFICE  
FEDERAL BUILDING, 10 W. 15<sup>TH</sup> STREET, SUITE 3200  
HELENA, MONTANA 59626

JAN 14 2010

Ref: 8MO

January 14, 2010

Leroy Spang, President  
Northern Cheyenne Tribal Council  
P.O. Box 128  
Lame Deer, MT 59043

Re: Emergency Order  
Birney and Muddy Cluster  
Water Systems

Dear President Spang:

Enclosed is an Emergency Administrative Order (Order or EAO) issued under section 1431 of the Safe Drinking Water Act (SDWA), 40 U.S.C. § 300i. In its current state, the water supplied by the Birney and Muddy Cluster Water Systems (Systems), may present an imminent and substantial endangerment to the health of persons. The Order is based on a loss of pressure in both distribution systems, which can cause a net movement of water from outside the pipe to the inside through cracks, breaks, or joints that are common in all water systems. Such a system failure may carry with it a high potential that fecal contamination or other disease causing organisms could enter the distribution system.

Manager Winslow White Crane and his staff notified EPA on January 12 that the communities had lost water service on January 6. Winslow conveyed to me that the Tribe was very helpful in assisting with the delivery of bottled water and other emergency services to the community and your assistance is greatly appreciated.

I would like to remind the Tribe and Utility Department that regulations require notification to EPA to occur within 24 hours of a situation involving drinking water which has the potential to have serious effects on public health. This prompt notification also allows EPA to provide assistance in diagnosing and correcting the problem. Within two hours of being notified of the emergency, EPA was able to have an engineer on site to assist, but the towns had already been without water service for a week at that point.

It appears that several factors contributed to the loss of water for these two towns:

- Modifications to pressure controls in the pumphouses were made,
- Improperly sized pumps and/or motors were placed in wells,




- Automation in pumphouses was disconnected for some functions,
- Telemetry and pressure switches to control tank levels are not functioning, and
- No system is in place to notify operators when tank levels become low.

The enclosed Order sets forth the actions that you must take to ensure that the people served by the water supply are provided with safe drinking water. The Order requires that the Northern Cheyenne Utility Organization conduct the following activities: (1) within 24 hours, provide written intent to EPA to comply with the EAO; (2) continue to provide alternative water to all users of the system; (3) inform EPA when necessary repairs are complete and water is being delivered to homes; (4) conduct increased monitoring for total coliform bacteria; (5) provide information to EPA on how the problems will be corrected and (6) continue to provide public notice that the water is unsafe to drink until notified otherwise by EPA. The purpose of this Order is to ensure that, as water service is restored, public health is protected.

EPA is committed to working with you to ensure the safety of Birney and Muddy Cluster's public water supplies. If your staff has questions specific to the elements of the Order, the most knowledgeable people regarding these issues are Barbara Burkland, Environmental Scientist, who can be reached at (406)457-5009, or Amy Swanson, Enforcement Attorney, who can be reached at (303)312-6906.

We urge your prompt attention to this matter.

Sincerely,

  
Julie DalSoglio, Director  
EPA Montana Office

cc: Winslow White Crane, Director  
Northern Cheyenne Utility Commission

Heather LaTray, HIS

Tina Artemis, Regional Hearing Clerk, EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

2010 JAN 14 PM 1:49

FILED  
EPA REGION VIII  
HEARING CLERK

IN THE MATTER OF )  
)  
Northern Cheyenne Utilities Commission, )  
)  
Birney Water System )  
PWS ID# 083090062 and )  
Muddy Cluster Water System )  
PWS ID# 083090065, )  
)  
Respondent. )  
)  
Proceeding under section 1431(a) of the )  
Safe Drinking Water Act, 42 U.S.C. § 300i(a) )

**EMERGENCY  
ADMINISTRATIVE  
ORDER**

Docket No. SDWA-08-2010-0013

**AUTHORITY AND FINDINGS**

1. This Emergency Administrative Order (Order) is issued by the Environmental Protection Agency (EPA) pursuant to the authority of section 1431(a) of the Public Health Service Act (also known as the Safe Drinking Water Act or Act). 42 U.S.C. § 300i(a). The undersigned officials have been properly delegated this authority.
2. Failure to comply with this Order may result in civil penalties of up to \$16,500 per day. 42 U.S.C. § 300i(b) and 40 C.F.R. part 19.
3. EPA may issue such Orders when certain conditions exist which may present an imminent and substantial endangerment to human health, and other state or local authorities have not acted to protect human health. 42 U.S.C. § 300i(a).
4. EPA has primary enforcement responsibility for the Act's public water supply protection program on the Northern Cheyenne Reservation (the Reservation). No other governmental authority has applied for and been approved to administer the program on the Reservation.
5. Respondent Northern Cheyenne Utilities Commission (Respondent) is a tribal agency organized under the laws of the Northern Cheyenne Tribal Government and is therefore a "person" as that term is defined in the Act. 42 U.S.C. § 300f(12).
6. Respondent operates the Birney Water System (Birney System), located on the Northern Cheyenne Indian Reservation, approximately 25 miles southeast of Lame Deer, Montana, that provides water for human consumption. The Respondent also operates the Muddy Cluster Water System (Muddy Cluster System), approximately 10 miles west of Lame Deer, Montana, that provides water for human consumption.

7. Systems that have at least 15 service connections or regularly serve at least 25 people per day at least 60 days per year or at least 25 year-round residents are subject to the requirements of the Act and its implementing regulations, 40 C.F.R. part 141 (also known as the drinking water regulations).

8. The Birney System serves approximately 116 residents annually through 25 residential service connections. The Muddy Cluster System serves approximately 195 residents annually through 69 service connections. The Birney and Muddy Cluster Systems (hereafter referred to collectively as “the Systems”) are therefore “public water systems” as defined in the Act.

9. EPA has determined that conditions exist at the Systems that may present an imminent and substantial endangerment to human health. The current emergency conditions were initiated by January 6, 2010 events when both Systems lost pressure. In the Birney System, the pump and electrical systems failed. In addition, bladders in the three pressure tanks are not functioning. In Muddy Cluster, the pump burned out and when the new pump was turned on, a high pressure situation caused broken water lines in the pump house. Loss of pressure may cause a net movement of water from outside the pipe to the inside through cracks, breaks, or joints in the distribution system that are common in all water systems. Back siphonage is also a condition resulting from low or no pressure. Such system failures carry a high potential that fecal contamination or other disease causing organisms could enter the distribution system. Pressure has not been restored in either System as of January 13, 2010.

10. Prior to issuing this Order, EPA consulted with the Utility Manager and local Tribal governmental authorities to confirm the facts and the potential endangerment, and has determined that this Order is necessary to protect human health.

### **FINDINGS OF VIOLATION**

11. Respondent is required to consult with EPA as soon as practical, but no later than 24 hours, after the public water supply learns of a situation with significant potential to have serious effects on human health as a result of short-term exposure. 40 C.F.R. § 141.202(b)(2). The Systems lost pressure on January 6, 2010. Respondent did not notify EPA of this event within 24 hours and, therefore, violated this requirement. EPA received notification of the event through a phone call from an operator on January 12, 2010.

## **ORDER**

### **INTENT TO COMPLY**

12. Within 24 hours of receipt of this Order, Respondent shall notify EPA in writing of its intent to comply with the terms of this Order.

### **BOIL ORDER AND PUBLIC NOTICE**

13. Within 24 hours of receipt of this Order, Respondent shall notify the public of the situation described in this Order by delivering a boil water advisory to all customers, posting it in conspicuous locations in each community, and announcing it on local radio. Directions on the required content and distribution of the public notice and advisory are included in Attachment A to this Order. Respondent shall submit a copy of the notices to EPA within 24 hours of their distribution. Respondent shall continue the public notice as set forth in Attachment A until EPA provides written notification to discontinue. Respondent must carry out the public notice and other notice requirements that EPA directs. Respondent must comply with this requirement upon any future pressure loss, acute Maximum Contaminant Level (MCL) violation, or any similar emergency situation.

### **ALTERNATE WATER SUPPLY**

14. Using the public notice required in paragraph 13 above, Respondent shall notify the public that an alternative potable water supply is available. The alternative water supply must be either 1) provided by a licensed water distributor, 2) purchased bottled water, or 3) provided by another public water system that meets the requirements of the drinking water regulations and shall be made available at no cost to all users of the Systems as needed for drinking and cooking until Respondent receives written notification from EPA that alternative water is no longer necessary. Respondent shall provide at least two liters of potable water daily per person at a central location that is accessible to all persons served by the Systems.

### **DISTRIBUTION SYSTEM DISINFECTION AND MONITORING REQUIREMENTS**

15. If Respondent has not already done so since notifying EPA of the emergency, Respondent shall clean, flush, and disinfect the Systems, including disinfection of the Systems' distribution systems and any storage tanks within 48 hours of receipt of this Order.

16. Once the Systems have been flushed and disinfected, Respondent shall collect consecutive daily (1 sample per day) special purpose total coliform samples from each distribution system.

17. After Respondent receives written notification from EPA that Respondent may discontinue daily total coliform sampling based on EPA's determination that a sufficient



number of daily total coliform sample results from each System have been negative, Respondent shall collect weekly special purpose bacteriological samples (1 sample per week from each System).

18. Respondent shall monitor the chlorine residual at the same time and same location as the Systems' special purpose total coliform samples (as required in paragraphs 16 and 17 above). Respondent shall maintain a detectable disinfectant residual as measured at the far end of each distribution system.

19. After Respondent receives written notification from EPA that Respondent may discontinue weekly total coliform sampling based on EPA's determination that a sufficient number of weekly total coliform sample results from the Systems have been negative, Respondent shall resume monthly total coliform sampling to determine compliance with the total coliform MCL. 40 C.F.R. §§ 141.21 and 141.63.

20. Respondent shall collect all total coliform sampling at sites which are representative of water throughout the distribution systems. Additionally, Respondent shall report all coliform and chlorine residual sampling results to EPA by telephone or fax immediately upon receiving the results.

21. For the total coliform sampling in paragraph 17 above, Respondent shall, before having these samples analyzed, designate one sample from each System as the monthly compliance sample to determine compliance with the MCL for total coliform. 40 C.F.R. §§ 141.21 and 141.63.

22. If any one of the designated compliance sample results are total coliform-positive, Respondent shall conduct repeat sampling as required by 40 C.F.R. § 141.21(b) by collecting a minimum of four repeat samples within 24 hours of being notified of the total coliform-positive sample. Furthermore, Respondent shall comply with the requirements of 40 C.F.R. § 141.21(b)(5) by collecting a total of 5 routine total coliform samples the month following a total coliform-positive compliance sample result.

23. EPA may require Respondent to increase and/or decrease total coliform sampling or chlorine residual sampling at any time while the Order is in effect.

### **PREVENTIVE MEASURES**

24. Within 7 days of the effective date of this Order, Respondent shall investigate and report in writing to EPA, the known or suspected cause of the loss of pressure events and what measures will be taken to prevent a reoccurrence of these problems. Please provide documentation of any requests for funding to address the problems.

### REPORTING

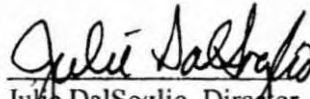
25. Respondent shall give daily updates to EPA on the progress of returning the Systems to compliance. Daily updates must be submitted to EPA until EPA notifies the Respondent that reports may be discontinued. These reports may be submitted via phone, fax, or e-mail.

26. All contact with EPA on this matter shall be to:

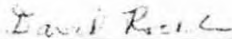
Barbara Burkland  
U.S. Environmental Protection Agency  
10 West 15<sup>th</sup> Street  
Helena, MT 59626  
Phone: (406) 457-5009 or 1-866-457-2690  
Fax: (406) 457-5055  
E-mail: [burkland.barbara@epa.gov](mailto:burkland.barbara@epa.gov)

27. This Order does not affect any legal requirement or EPA's legal enforcement options in this matter.

Issued and effective this 14 day of January, 2010.



Julie DalSoglio, Director  
EPA Region 8 Montana Office



David Rochlin, Supervisory Attorney  
Legal Enforcement Program  
Office of Enforcement, Compliance  
and Environmental Justice