

2011 CCR Revisions for Groundwater Systems

All community water systems will eventually be required to report their entry point minimum residual disinfectant level. Consequently, DEP has added a new definition of "Minimum Residual Disinfectant Level" and a new table "Entry Point Disinfectant Residual" to the CCR templates. Another new table "Raw Source Water Microbial Contaminants" has been added to the CCR template to report all positive source water *E. coli* sample results.

New Definition:

Minimum Residual Disinfectant Level – The minimum level of residual disinfectant required at the entry point to the distribution system.

New Table: Entry Point Disinfectant Residual

<i>Entry Point Disinfectant Residual</i>							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.40			ppm			Water additive used to control microbes.

- According to 109.1302(a)(4), community groundwater systems must provide 4-log treatment of viruses prior to the first customer no later than:
 - April 1, 2011 for systems serving more than 500 people
 - April 1, 2012 for systems serving 100 to 500 people
 - April 1, 2013 for systems serving less than 100 people.
 - A DEP-approved alternative compliance schedule.
- When you begin reporting minimum residual disinfectant levels, you may want to use the Entry Point Disinfectant Residual table to avoid confusion with reporting a minimum residual and a maximum residual disinfectant level for the same contaminant under the "Chemical Contaminants" table.
- For reporting entry point disinfectant residual, include the **lowest value** and the **range** for entry point residuals. If you have received an alternative minimum residual value approved by DEP other than 0.40 ppm expressed as free chlorine to provide 4-log treatment of viruses, insert this value under "Minimum Disinfectant Residual" field.
- You are in violation for failing to maintain 4-log treatment of viruses if your entry point disinfectant residual is below your minimum disinfectant residual value for

more than 4 hours.

- You are still required to report the highest monthly average result for your distribution disinfectant (chlorine, chlorine dioxide or chloramines) as it compares to the MRDL under the “Chemical Contaminants” table.

New Table: Raw Source Water Microbial Contaminants

Raw Source Water Microbial					
Contaminants	MCLG	Highest # of Positive Samples	Date(s)	Violation Y/N	Sources of Contamination
<i>E. coli</i>	0			N	Human or animal fecal waste

- According to 109.1303(a), groundwater systems not required to conduct compliance monitoring under 109.1302 for one or more groundwater sources shall collect a source water sample within 24 hours of notification of a total coliform-positive routine sample collected under 109.301(3)(i) and have it analyzed for the presence of *E. coli*. The system shall collect a sample from each groundwater source that is not provided with DEP-approved 4-log treatment of viruses and is connected to the distribution system from which the total coliform-positive sample was collected.
- A groundwater system that has a positive *E. coli* source water sample must report the total number of positive *E. coli* source water samples taken in the year and the date(s) of the positive sample(s).
- A groundwater system that has a positive *E. coli* source water sample must include the following information under the “Other Violations” section of the CCR template:
 - The source of the *E. coli* contaminations (if known) and the date(s) of the positive *E. coli* sample(s).
 - If the *E. coli* contamination has been addressed, the date and how it was addressed.
 - If the *E. coli* contamination has not been addressed, the state-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.
 - Health effects language for *E. coli*.

Treatment Technique Violations:

- Failure to maintain 4-log treatment of viruses for more than 4 hours by the due date under 109.1302(a)(4).
- Failure to take corrective action when ordered by DEP, if necessary, based on a

significant deficiency or a positive *E. coli* sample.

- Failure to meet corrosion control treatment, source water treatment, lead service line replacement, or public education requirements.

Under the “Other Violations” section of the CCR template, a water supplier must provide the following information for any treatment technique violation:

- Description of the violation
- Explanation
- Length of time that system is in violation
- Steps taken to correct the violation
- Health effects language

Health Effects Language:

- Insert *E. coli* health effects language for any positive *E. coli* source water sample result.

Fecal coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely-compromised immune systems.

- Insert lead or copper health effects language for violations of the corrosion control treatment technique requirements based on which contaminant exceeded the action level.

Lead – Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper – Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s disease should consult their personal doctor.

- For all other treatment technique violations, insert the following health effects language:

Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.