



# NEWSLETTER

2005 SPRING UPDATE

## RADIO WHAT????

By: Roger Ballew  
District Manager

**Radionuclides** This article will attempt to introduce you to radionuclides so you may find out more about them if you wish. For more information please see the list of references at the end of this article. Some of the first questions that come up when someone hears “radionuclides” are:

*What are they? What do they do? Where are they found? Are they in our water?*

The answers may seem a bit confusing, and the jury is still out on some of these questions, but I can tell you with confidence that they are, at least some of them, present in our source waters and have been there for some time.

The radionuclides the District is concerned with are radium 226, radium 228, and gross alpha. These radionuclides have been identified through testing as being present to a degree that exceeds the established **Maximum Contaminant Level (MCL)**. There has been some debate for some time over exactly what should be done with this issue, and the **Environmental Protection Agency (EPA)** has finally established a **final MCL** for these contaminants. These contaminants are naturally occurring which can, if ingested in the right amounts for the right amount of time, be a potential cause of various cancers.

The District has **one** well that exceeds the **MCL** for gross alpha and combined radium 226 and 228. If you recall the **Consumer Confidence Report (CCR)** that was sent to you July 2004, showed a violation which occurred for an **MCL Average Exceedance for Gross Alpha**. We also sent you a **Notice of Violation**. This violation was for **one** well. The District is currently working on a remedy for this well. You may ask “why not abandon the well?” There are several reasons why we decided not to abandon the well. Some of which are: the need for water supply this well provides, the cost to drill a new well with no guarantee that the new well wouldn't have elevated radionuclides, and the knowledge that we can remedy the affected well satisfactorily.

The District has already changed the way we utilize the wells. The water supply is designed in a grid and on the same hydraulic gradient, which means that all the water from all the wells and in the towers is blended in the system. The well that is lowest in radionuclides is the lead well which means it runs most of the time. So, the water from the well that is out of compliance is being blended and diluted before it reaches you, the customer. In order to be in compliance for this specific well, the District is working with an engineering firm on a study for treatment of this well. We will let you know how we are progressing with treatment of this well in our next **UPDATE** or **NO. 9 NEWS**.

If you have any concerns regarding the health effects of the water from this affected well, here are some facts for you to consider (I have taken these facts from Kenny Duzan, Coordinator of Radiological Testing, from the Department of Natural Resources. Kenny Duzan is also a **NO. 9** customer.):

*“Drinking water standards are based on 4 millirems of radioactivity exposure as the MCL. So, the radium standard of 5 pCi/L will give you 4 mrems of exposure if you drink 2 liters of water every day for a year with that amount. The radioactivity in our water is naturally occurring, and is probably derived from Pennsylvanian deposits such as shale and limestone that are found in Boone County. This is what the drinking water MCL for radioactivity is based on: if a population of 10,000 people drink 2*

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### SPECIAL POINTS OF INTEREST

- **Utility Locates** - for location of facilities call **MO ONE CALL** at 1-800-344-7483
- **PWSD #9 Board of Directors meeting** is held at the District office on the 3rd Tuesday of every month at 7:30 pm. Please call for verification of date and time.
- **Deposits** are required on all meters.
- **Rates** are currently set at \$3.05 per 1000 gallons of usage.

## RADIO WHAT???? (CONTINUED FROM PAGE 1)

liters of water every day that has 5 pCi/L of radium for 70 years, we would expect one extra fatal case of cancer over the 70 years. To put this all into perspective with the radioactive exposure we get from other sources, a person gets 35 mrems of exposure from cosmic rays coming from space or 7 mrems from living in a brick or stone home every year. The average smoker gets 1300 mrems per year.

Based upon our current knowledge, it is assumed that any radiation exposure from any source carries some degree of risk. However, limits for radiological contaminants in drinking water have been set well below levels for which health effects have been observed and is therefore assumed to be productive of public health.”

For more information, please see the following:

American Water Works & American Association of Civil Engineers, 1998, *Water Treatment Plant Design: 3rd ed.* The McGraw-Hill Companies, Inc.

U.S. Environmental Protection Agency, September 1998. *Small System Compliance Technology List for the Non-Microbial Contaminants Regulated Before 1996.* EPA 815-R-98-002.

U.S. Environmental Protection Agency, June 1991. *Office of Ground Water and Drinking Water Radionuclides in Drinking Water—Fact Sheet* EPA 570/9-91-700

U.S. Environmental Protection Agency. October 1999. Office of Groundwater and Drinking Water. *Proposed Radon in Drinking Water Rule: Technical Fact Sheet* EPA 815-F-99-006

## RURAL WATER

By: Lewis Baumgartner

A man named Percy Overstreet delivered our water when I was a boy. He had a big truck and would back into our backyard, stick a hose in the well and open the valve. In the kitchen, we kept a water bucket. I suppose it held a couple of gallons and a dipper. The well was equipped with a chain pump. That thing would pump pretty fast, and it didn't take long to fill the bucket, especially if it was cold or raining. There were four of us boys, and we would argue about who's turn it was to get a bucket of water. It was a primitive system by today's standards, but it worked.

In the sixties, they began talking about running a water line from town out into the country. If you signed up for a meter when they were coming through, it was only \$35. It sounded a little far-fetched at first but the talk persisted, and in 1964 it became a reality. A fifteen hundred gallon minimum was \$5.15. We were on Boone county Rural Water District #9. I still am as a matter of fact. Number 9 was one of the very first rural water districts in the United States. It was great not to have to run to the well every time you needed water.

District water is great but it can have its downside too. Back in the early nineties, our son was dating a William Woods College girl from Indiana. She was into horses; that's why she went to William Woods. They have been married now for 11 years and have 3 beautiful children. Anyway, the college would let these girls take horses home with them for the summer. Kelly brought a couple mares out to our place. I let her use the front pasture, and I never paid much attention to them. One day as I was mowing that pasture, I noticed a muddy spot. It had been dry for sometime, and mud was out of place at that spot and at that time. There is a water hydrant in that field, and it was fully open. One of those horses had hooked her halter on the handle of the hydrant and had opened it. Before we noticed it, we had run up a three hundred and eighty-eight dollar water bill! I've had a couple more bad leaks over the years, but none as expensive as that one. Of course I like to tell about that one best because it gives me something to throw at my daughter-in-law once in awhile! I would strongly suggest that if you notice a difference in your water pressure, you go take a look around! Even with that experience, rural water is great! I'd hate to go back to that cistern chain and pump!

“ Number 9 was one of the very first rural water districts in the United States.”



**Public Water Supply District is a proud member of:**  
Missouri Rural Water Association  
American Water Works Association  
Rural Missouri Essential Services Association  
We are also an affiliate of the National Rural Water Association

**We're on the Web!!!!!!**  
**Check us out at**  
**[www.pwsd9.com](http://www.pwsd9.com)**

**PUBLIC WATER SUPPLY DISTRICT NO. 9**  
**391 NORTH RANGELINE ROAD**  
**COLUMBIA MO 65201**  
**(573) 474-9521 OR (573) 474-9522**  
web site: [www.pwsd9.com](http://www.pwsd9.com)

PWSD #9 Account # \_\_\_\_\_ Parcel/W9 # \_\_\_\_\_

I hereby authorize Public Water Supply District No. 9 to charge my checking, savings and loan, credit union, or Visa/MasterCard account for the amount of the water bill. I further authorize the bank, savings and loan, credit union, or Visa/MasterCard to debit the same to such account.

**Payments are to be processed on or near the 10<sup>th</sup> of each month.**

**Please Print**

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Your** telephone number \_\_\_\_\_

Name of bank, savings and loan, credit union, or Visa/MasterCard

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Bank transit number \_\_\_\_\_ Account # \_\_\_\_\_

**(PLEASE ATTACH A VOIDED CHECK FOR THE ACCOUNT TO BE CHARGED)**

**Each keyed/phone call transaction is subject to a \$3.00 convenience fee.**

Visa/MasterCard number from front and back of your card

\_\_\_\_\_  
Expiration Date \_\_\_\_\_  
(# on back of card)

Your mailing (billing) address for your credit card **(Please notify our office if this address changes.)**

\_\_\_\_\_  
Zip \_\_\_\_\_

This authority is to remain in full force and affect until Public Water Supply District No. 9 has received written notification from me of its termination in such time and in such a manner as to afford Public Water Supply District No. 9 and financial institution a reasonable opportunity to act on it.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed name \_\_\_\_\_

PLEASE NOTIFY OUR OFFICE WHEN ANY OF THE ABOVE INFORMATION CHANGES.  
YOUR PAYMENT **WILL BE REJECTED** IF THERE IS ANY INFORMATIONAL DISCREPANCY.  
**WE WILL NOT NOTIFY YOU IF YOUR PAYMENT IS REJECTED.**

Merchant #695200392998



Presorted Standard  
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391 N. Rangeline Road  
Columbia, MO 65201

**Phone:** (573) 474-9521

**Fax:** (573) 474-4347

**Office Hours:** 8:00 a.m.—4:30 p.m.

**After Hours Emergency line:**  
(573) 474-9522

**Website:** www.pwsd9.com

**Our Board of Directors:**

JR Richardson, President  
Ralph Cox, Vice-President  
James Davenport, Director  
Zane Dodge, Director  
Gary Cunningham, Director

**Manager:** Roger Ballew

**Office Manager:** Diana Fredrick

**GIS Manager:** Kyle Baker

**Operations Supervisor:** Tim Darling

**Construction Supervisor:** Scott Payne

Mailing Address Line 1  
Mailing Address Line 2  
Mailing Address Line 3  
Mailing Address Line 4  
Mailing Address Line 5

**The PWSD No. 9 Office will be closed the following holidays:**

July 4, Independence Day  
September 5, Labor Day  
November 11, Veteran's Day  
November 24 & 25 Thanksgiving  
December 26, Christmas

## WELLHEAD PROTECTION

By: **Donna Dodge**  
Committee Chairperson

### What is the Source of my water?

The sources of drinking water, both tap and bottled, include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Our water comes from the following source: ground water wells.

The Department of Natural Resources conducts an assessment of our source water to determine its susceptibility to contamination. The assessment is a three-step process of identifying an area around our wellhead(s), inventorying potential sources of contaminants within that area [a one-half mile radius around the wellhead(s)], and a look at the adequacy of well construction. The assessment helps us keep a wellhead protection program in force to protect this valuable resource.

Contaminants that may be present in source water include:

- A. Microbial contaminants such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. Inorganic contaminants such as salts and metals which can be naturally occurring or result from urban storm water run-off, industrial, or domestic wastewater discharges, oil and gas production, mining or farming.
- C. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water run-off, and residential uses.
- D. Organic chemical contaminants, including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water run-off, and septic systems.
- E. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, the Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

All members of PWSD No. 9 are possible reporters pointing out any possible contamination to our water sources; therefore, our water is kept safe throughout the service area by the vigilance of all PWSD No. 9 customers.