Comments on this issue

Looking on the Lighter Side

News You (Probably) Can't Use

As I write this, in early October, the daily news (at least the economic news) is so perilous that I am reluctant to turn on the computer, pick up a newspaper, or listen to the radio. However, I am pleased to report that not all the news is so dire. In the nuclear waste programs, we've seen some positive developments—the U.S. Nuclear Regulatory Commission docketed the U.S. Department of Energy's license application for construction of the Yucca Mountain repository; the U.S. Environmental Protection Agency at long last issued the final radiation protection standard for the repository; and work continues at DOE cleanup sites around the country. These items are all covered in this magazine's "Headlines" section (see page 10).

Ah, but there has been other news that crosses my desk that somehow doesn't seem quite right for the Headlines pages, but is too much fun to just toss away. Usually, I hang onto these items for a month or two, and then reluctantly throw them out. In these critical times, however, I think we need a little lift, so I will share a couple of the more interesting items I've come across lately.

- A very short item from the World Nuclear News folks reports that researchers at the University of Pittsburgh School of Medicine have found that the antioxidant resveratrol, which happens to be found in red wine (and in numerous plants), may help protect against radiation exposure. These researchers gave acetyl-altered resveratrol to mice before exposing them to radiation, and discovered that the mice's cells were protected from radiation-related damage. The researchers are now conducting further studies to determine if the same chemical can protect humans. The report notes that there are currently no drugs on the market that can protect against or counteract radiation exposure.

  How lovely would it be if all it took to treat radiation exposure was a glass of red wine? Just think, if there ever were a terrorist dirty bomb attack, authorities could pour the wine and the terrified or panicked nearby population would not only be protected, but would also probably relax a whole lot. Double protection, so to speak.

- Another news story, this one from the *Tri-City Herald,* which serves the Hanford communities, reports that Hanford researchers are injecting vegetable oil (mixed with water) into groundwater contaminated with toxic chromium. Last year, they tried molasses. The goal is to overfeed the bacteria in the groundwater. As they eat the extra oil or molasses, their population blooms. When the food is gone, they start eating each other. The sustained feed reduces the limited amount of available oxygen in the water and then begins converting the toxic chromium into a form that is less toxic, and also less mobile, tending to stick to the soil rather than dissolving into the groundwater and moving toward the Columbia River.

  It turns out that molasses is cheaper than vegetable oil, but that vegetable oil will last longer because its organic compounds are more concentrated and cling to the sand underneath the ground to be released slowly into the groundwater. So, the results from vegetable oil could last up to five years, compared to the two-year improvement expected from molasses. Anyone who has ever been on a diet can confirm that oil lasts longer than molasses—if you eat a meal heavy on carbs (molasses), you are hungrier sooner than if you eat a meal heavy on the fats (vegetable oil). Hence the popularity of the Atkins diet.

Actually, to get a bit serious for a minute, these items point to the creativity and ingenuity of researchers in the field of nuclear waste. Every year, they are discovering new cleanup techniques, new remediation methods, new mitigation possibilities. So, next time you raise a glass of red wine while you are eating your fat-heavy dinner, give a salute to the world's nuclear waste researchers.—*Nancy J. Zacha, Editor*