



American Chemical Society

Central Wisconsin Section



The Former Soviet Union and the Nuclear Waste Program

by

Dr. William H. Zoller
University of Washington

Wednesday, March 5, 7:30 pm
UW-Eau Claire
Phillips Hall Room 267

5:30 Cocktails; 5:45 Dinner, Sweetwaters Restaurant



Abstract:

With the changes that have been occurring in the former Soviet Union (FSU), we are finding out more about the fate of radionuclides that were produced during the production of plutonium for the weapons programs. The weapons production facilities in the Southern Ural Mountains have left a vast quantity of radioactive debris in the environment that has impacted vast areas of the country. Much of the debris was dumped into areas that have left highly contaminated areas of the region so that entire areas of the country are biologically "dead." Much of the debris was dumped into rivers, on lakes and is still moving in the environment. One of the options available to the United States is to help with studies of this material to learn how things will move through the environment. By working with scientists in the FSU we can learn much about how to mitigate problems of this type, and in the process assist them to help themselves and their country.

The Speaker:

Bill Zoller was born in Cedar Rapids, Iowa, on March 3, 1943, but grew up in Alaska during the 1950's and 60's. He graduated in chemistry from the University of Alaska in 1965 and went to graduate school at the Massachusetts Institute of Technology where he studied nuclear chemistry and graduated in 1969 with a Ph.D. He became an Assistant Professor of Chemistry at the University of Maryland in 1970 after a brief post doc at the University of Hawaii. He became a Full Professor in 1969 at Maryland, and while there published numerous research papers and led research programs in urban air pollution, volcanic chemistry, and atmospheric chemistry in Antarctica. Most of his research has been to use Instrumental Neutron Activation Analysis to measure trace elements in samples from the atmosphere. His work also has been with the measurement of radioisotopes in the environment from atmospheric weapons testing and reactor accidents, such as Chernobyl in the former Soviet Union. In 1984 he moved to the University of Washington in Seattle as a Professor of Chemistry where he still works. Within two years of arriving in Seattle, he suffered a serious auto accident in which he suffered a traumatic brain injury that has removed much of his memory of both the past and day-to-day functions. Because he had to learn how to teach freshman chemistry without having a memory himself, he devoted his time to learning how to teach in a different way. He learned to teach chemistry using a computer and the computer PowerPoint program. Since then, he has produced over 500 computer slides for teaching freshman chemistry. These slides are now used with the Silberberg Freshman Chemistry book (McGraw-Hill). Since then, all major textbooks also have obtained computer slides, which the students love!

The social mixer at 5:30 and dinner at 5:45 PM will be at Sweetwaters Restaurant, 1104 W. Clairemont Ave, Eau Claire (near the intersection of Clairemont (US 12) and State Highway 37). **Make reservations by Tuesday at 5 PM** by leaving a message at 715-836-4744 or email lewisd@uwec.edu.