ABSTRACT

Several reports have been published which emphasize the predicated loss in the nation’s nuclear and radiochemistry expertise as a significant portion of the current workforce nears retirement age. In 2012, the National Academy of Sciences assessed the demand for and supply of nuclear and radiochemistry experts, concluding that the current number of graduates in nuclear and radiochemistry is not sufficient to meet the projected growth in nuclear medicine and nuclear energy fields. By contrast, in January 2014, the U.S. Bureau of Labor Statistics projected slower than the average employment growth for chemical engineers from 2012 to 2022.

The National Analytical Management Program (NAMP) serves as a central focal point for coordinating analytical resources and radiochemistry capabilities available within the U.S. Department of Energy (DOE) complex. NAMP membership is open to all laboratories providing services to the DOE, i.e., government-owned and government-operated, government-owned and contractor-operated, and private sector laboratories. The expertise provided and services rendered by these laboratories in radiochemistry and nuclear engineering are available to national and international agencies as required, especially in the event of emergencies such as natural disasters, accidents, or terrorist activities.

NAMP Education and Training subcommittee was created to respond to the challenge of maintaining a well-educated workforce and to meet the projected growth in nuclear field. Using modern internet technologies, the NAMP Education and Training subcommittee in partnership with university professors and professionals have conducted live webinars on a monthly basis. These webinars are accessible to a broad audience to educate and strengthen the knowledge of participants in applications related to nuclear chemistry (i.e. actinide and fission products chemistry, sample preparation, detection, dosimetry and risk assessment).

Since April 2012, when NAMP launched its first radiochemistry webinar, a total of 30 short (~2-hour) educational lectures on radiochemistry topics have been conducted by renowned university professors and leading scientific experts. The current series of webinars related to the Nuclear Fuel Cycle is ongoing, and a look at the webinars currently in development and planned through 2016 is included. The live webinars are recorded and archived as an online educational resource to the public from the NAMP website (http://www.wipp.energy.gov/namp). In addition, the webinars offer unprecedented opportunities for interdisciplinary crosslinking and collaboration in education and research.