Biography

Monica Regalbuto, Ph.D.

Director, Integrated Fuel Cycle Solutions

Dr. Regalbuto is a leader in the development of nuclear fuel cycle technologies, combining her knowledge in separations, computer simulations, and proliferation risk reduction. She has over 30 years of experience in radio-isotope processing, recovery and immobilization for environmental remediation, resource conservation and medical applications.

She currently leads the integrated fuel cycle strategic initiative at the Idaho National Laboratory. In this role, she serves as the lead for the high assay low enrich uranium (HALEU) program, ensuring there is an adequate supply of HALEU fuel for advanced reactors and other applications.

Dr. Regalbuto has served in multiple national leadership roles. In 2015, she was appointed by President Obama and confirmed by the Senate as Assistant Secretary for the Office of Environmental Management for the U.S. Department of Energy (DOE). In this capacity, she was responsible for managing the environmental cleanup resulting from weapons production as well as special nuclear materials. This responsibility involved an annual budget of over $6B per year with a geographically dispersed workforce of over 20,000 federal and contractor employees. She managed 16 sites across 11 States. As DOE-EM Assistant Secretary she oversaw management, operations and strategic directions for the Savannah River National Laboratory, an applied research and development laboratory of DOE. As the Deputy Assistant Secretary for Fuel Cycle Technologies with DOE's Office of Nuclear Energy, Dr. Regalbuto managed the nation's research and development fuel cycle portfolio with a budget of about $185 M and a federal staff of about 50 employees. At Argonne National Laboratory, Dr. Regalbuto served as the head of the Process Chemistry and Engineering Department in the Chemical Sciences and Engineering Division and managed a group of 30 researchers. Dr. Regalbuto has contributed to the development of innovative energy technologies. As a researcher at Argonne National Laboratory, she has made key contributions to nuclear fuel cycle technology, beginning with the TRUEX

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process for removing transuranic elements from aqueous acidic solutions such as those found at DOE waste sites throughout the United States, followed by the development of advanced separations processes as alternatives for recycling spent fuel. She led the development of AMUSE, a computer model used by researchers to optimize processes for separating dissolved spent nuclear fuel. Under Dr. Regalbuto's leadership, Argonne conducted highly successful process demonstrations, the CSSX process, a process for separating cesium-137 from high-level radioactive waste at DOE's Savannah River site and the UREX+ processes, a suite of solvent extraction processes for the recovery of actinides and fission products from spent fuel. During her tenure at Amoco Oil company, as a member of the Hydroprocessing Team she provided key technical support to several refineries and developed and evaluated alternative technologies for lowering the sulfur levels of gasoline.

Dr. Regalbuto serves today as a member of the Standing Advisory Group on Nuclear Energy (SAGNE) at the IAEA which advises the Director General. She has authored multiple journal articles, reports, and presentations and holds six patents.