



**Career Review**  
**Monica C. Regalbuto**

Monica Regalbuto has contributed to the development of innovative energy technologies throughout her professional career. As a member of Amoco's Hydroprocessing Team she provided key technical support to several refineries. Subsequently at Amoco, she was tapped to participate in a newly formed team to develop and evaluate alternative technologies for lowering the sulfur levels of gasoline. As a researcher at Argonne National Laboratory, Dr. Regalbuto has made key contributions to nuclear fuel cycle technology, beginning with the TRUEX process for removing transuranic elements from aqueous acidic solutions such as those found at DOE waste sites throughout the United States. 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 a highly successful demonstration of CSSX, a process for separating cesium-137 from high-level radioactive waste at DOE's Savannah River site.

Today, as head of the Process Chemistry and Engineering Department in Argonne's Chemical Sciences and Engineering Division, Dr. Regalbuto manages a group of 30 researchers with a combined budget of ~\$9 million. She maintains technical leadership in the development of advanced separations processes as alternatives for recycling spent fuel. Dr. Regalbuto is a key contributor to the development and demonstration of the UREX+ processes and pre-conceptual engineering design. Dr. Regalbuto's research supporting the development of nuclear fuel cycle technologies combines her experience in separations, computer simulations and proliferation resistance areas. In 2007 Dr. Regalbuto received both the Hispanic Engineer National Achievement Award Corporation (HENAAC) Professional Achievement Award and the American Nuclear Society (ANS) Jane Oestmann Professional Women's Achievement Award. In January of 2008, she was named deputy campaign director for Separations for the GNEP program. She is an affiliated researcher with the Massachusetts Institute of Technology, Cambridge, MA and currently holds an IPA position with DOE-EM.