

Benjamin (Ben) E Lewis Jr.

Manager/Group Leader, Nuclear Materials Processing Group,
Nuclear Security and Isotope Technology Division, Oak Ridge National Laboratory
P. O. Box 2008, Building 7920, Rm 5, MS-6384
Oak Ridge Tennessee, 37831-6384
Phone: (865) 574-4091 (work), (865) 966-8203 (home), (865) 254-8203 (cell)
FAX: (865) 576-6312 (work), Email: lewisbejr@ornl.gov

Experience Summary: 1976 to Present – UT Battelle LLC, Oak Ridge National Laboratory, Oak Ridge, Tennessee

2009 to Present – Manager/Group Leader, Nuclear Materials Processing Group, Nuclear Security and Isotope Technology Division. Responsible for management and technical oversight of personnel and experimental and production activities conducted in both hot and cold research facilities.

2001 to 2009 – Manager/Group Leader, Process Engineering Research Group, Nuclear Science and Technology Division. Responsible for management and technical oversight of personnel and experimental activities conducted in both hot and cold research facilities.

1997 to 2002 – Principal Investigator. Responsible for planning, management, and implementation of Office of Technology Development Technical Task Plan - Improved Systems for Tanks Sludge Retrieval, Conditioning, and Transfer.

1997 to 2002 – Principal Investigator. Responsible for planning, management, and implementation of Office of Technology Development Technical Task Plan OR16WT51, LMES Retrieval and Closure.

1991 to 2001 – Manager/Group Leader, Project and Development Support Group, Robotics and Process Systems Division. Responsible for management of assigned personnel and all operations, testing, and maintenance conducted in a pilot scale (0.5 t/d) fuel reprocessing demonstration facility known as the Integrated Process Demonstration Facility.

1994 to 1997 – Project Management Team Member for the Gunitite & Associated Tanks Treatability Study. Responsible for evaluation of waste treatment, storage, and disposal options and tank stabilization and closure alternatives.

1994 to 1994 – Technical Correspondent for the Chemical Process Technology Section. Technical management and direction of the Chemical Process Technology Task of the United States Department of Energy (DOE)/Power Reactor and Nuclear Fuel Development Corporation of Japan (PNC) Collaboration Program in the field of the Nuclear Fuel Cycle.

1990 to 1994 – Technical Correspondent for the Continuous Head-End Process Technology Section. Technical management and direction of the Continuous Head-End Process Task of the DOE/PNC Collaboration Program in the field of the Nuclear Fuel Cycle.

1976 to 1990 – Development Staff Chemical Engineer. Broad experience in the field of nuclear fuel reprocessing with emphasis on the chemical and mechanical aspects associated with the development and implementation of advanced process technologies, including fuel dissolution, fluid transfer, feed clarification, chemical separations, remote handling, and process modeling. Directly responsible for the design, development, testing, and mathematical modeling of various advanced processes and equipment related to nuclear fuel reprocessing and waste management, including continuous dissolution and fluid transfer operations.

Education and Training: Completed course work in pursuit of Ph.D. in Chemical Engineering – University of Tennessee, Knoxville, Tennessee (through Spring Semester June 1998). MS Engineering

Administration/Chemical Engineering, 1984 – University of Tennessee, Knoxville, Tennessee (August 25, 1984). BS Chemical Engineering, 1976 – Tennessee Technological University, Cookeville, Tennessee (June 5, 1976). Numerous managerial and technical skill enhancing courses.

Patents:

- Carbonate Cycle for Thermochemical Production of Hydrogen. Assigned to UT-Battelle, LLC, Oak Ridge, TN. Patent application filed with US Patent Office on October 19, 2007. US Patent No. 7,666,387 awarded February 23, 2010.
- Guidable Pipe Plug. Assigned to UT-Battelle, LLC, Oak Ridge, TN. Patent application filed with US Patent Office on May 26, 1999, US Patent No. US 6,223,776 B1 awarded May 1, 2001.
- Air lift recirculator for use in solids suspension and mixing. Patent application assigned to US government in March 1982.

Awards and Honors: UT-Battelle Performance Awards – 2015, 2014, 2013, 2012, 2010, 2009, 2008, 2006, 2004. UT-Battelle World Class Teamwork Award – June 2000. Lockheed Martin Energy Research Corporation Performance Award – 1998. Lockheed Martin R&D Accomplishment Award – 1997. Martin Marietta Energy Systems Special Achievement Award –1991. Outstanding Chemical Engineering Student – Tennessee Technological University, 1976.

Other Memberships and Affiliations: American Institute of Chemical Engineers (AIChE). Editor of Knoxville-Oak Ridge AIChE Chapter monthly newsletter – 2006 to present. Chair, Knoxville-Oak Ridge AIChE Chapter, Knoxville TN – 2006. Webmaster, Knoxville-Oak Ridge AIChE Chapter – August 2004 to present. Director, Knoxville-Oak Ridge AIChE Chapter – January 2003. Leadership ORNL participant – 1999/2000. Technical reviewer for the DOE Small Business Innovation Research program in the area of fluidics research 1987 – 1993. Session Chairman for the Mechanical Technology in the Nuclear Industry Session of the 1991 AIChE Summer National Meeting. Registered Professional Engineer in state of TN since 1982, Certificate No. 15197 (inactive). Theta Tau Professional Engineering Fraternity. Phi Kappa Phi. Farragut Christian Church: Treasurer, 1996-1998; Deacon, 1995-1998.

Clearance: Q clearance/SCI, DOE, UT-Battelle LLC.

Publications and Presentations:

Author or co-author of 83 technical reports and articles covering tank waste retrieval techniques, tank closure demonstrations, fuel cycle technologies, dissolution system development, off-gas treatment, process modeling and simulation, flow sheet design, reliability and risk assessment, safety assessment, feed clarification technology, fluid transfer technology, criticality analysis, and environmental restoration treatment alternatives.

Presented and/or assisted in preparation of 163 internal and external presentations on various areas including specific technical areas, broad overviews, program development/marketing information, status updates, and safety briefings.