

JOHN MICHAEL BEGOVICH, Ph.D.
Nonproliferation Technology Group Leader
Nuclear Security and Isotope Technology Division
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PERSONAL

Born: October 9, 1952 Married, 5 Children
Height: 6 ft Health: Excellent
Weight: 200 lbs.
Activities: Soccer Referee, Jogging, Bicycling, Tennis, Recording for the Blind and Dyslexic,
Church Treasurer
Current US-DOE "Q" Clearance (Secret)

EDUCATION

2002 Time for Life, Learning as Leadership
2001 Personal Mastery in Action, Learning as Leadership
1999 Developing Managerial Excellence, Darden School of Business, University of Virginia
1997 Leadership Development Program, University of Tennessee/ORNL
1990 Advanced Management Program, Martin Marietta Energy Systems
1990 Industrial Research Institute Advanced Study Group - Multidisciplinary Teams
1985 Industrial Research Institute Management Study Group
1982 Ph.D., Chemical Engineering, University of Tennessee, Knoxville
 Dissertation: Multicomponent Separations Using a Continuous Annular Chromatograph
1978 M.S., Chemical Engineering, University of Tennessee, Knoxville
 Thesis: Hydrodynamics of Three-Phase Fluidized Beds
1974 B.S., Chemical Engineering, University of Dayton, Dayton, Ohio

EXPERIENCE

December 9, 2013 – June 4, 2014
Interim Director of the Nuclear Security and Isotope Technology Division (NSITD).

December 2008 – Present
Group Leader of the 30 person Nonproliferation Technology Group, NSITD. ORNL Customer Interface Manager for DOE/NNSA NA-24 Office of Nonproliferation and Arms Control. The NT Group provides technical support for national and international export control organizations with an emphasis in nuclear, chemical, or biological weapons and missile applications. The Group also provides technical support in treaty verification, nuclear arms reduction, human reliability, excess plutonium disposition, emerging threats, and limiting proliferation of nuclear weapons. Participated in two NNSA visits to the DPRK in 2008 to monitor North Korea's nuclear weapons program disablement.

August 2007 – September 2008
Interim Group Leader of the 27 person Safeguards Group, Nuclear Science and Technology Division (NSTD). Work to provide independent assurances of national and

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international compliance with commitments that promote safeguards and the peaceful uses of nuclear material. Involved in developing and implementing verification technologies supporting Department of Energy and International Atomic Energy Agency initiatives. Interact with sponsors including Offices within NA-20, Defense Nuclear Nonproliferation, National Nuclear Security Administration (NNSA) of the DOE. Lead activities of the Group to develop advanced safeguards technologies, improve the proliferation resistance of nuclear facilities, implement the Additional Protocol to the Nuclear Nonproliferation Treaty, assist other countries in improving their safeguards, and work with NNSA in developing their Next Generation Safeguards Initiative. Responsible for the Safeguards Laboratory, an ORNL National User Facility that interacts with professionals from academia, private industry, and other government agencies.

October 2003 – December 2008

Senior R&D staff member in the Safeguards Group, NSTD. Manage the Nuclear Noncompliance Verification (NNV) tasks within the Office of Dismantlement and Transparency, NA-241, at ORNL, and serve as the Customer Interface Manager with NNV for the ORNL Global Security and Nonproliferation Program. Perform own work for the NNV sponsor and manage the work of others at ORNL to ensure high quality, timeliness, and budget goals are met. Have twice served extended assignments at NNSA HQ in Washington DC (June – September of 2004 and February – August of 2006).

October 2001 – March 2004

Leader of U-233 Projects Group (through April 30, 2003) and Deputy Director of Molten Salt Reactor Experiment Conversion Project (MSRE CP), NSTD. Responsible for 10 direct reports and 25 other matrixed staff and subcontractors. Received permission to operate the equipment to depressurize the NaF traps from DOE after a rigorous operational readiness review process. Responsible for operating the CP facility, which was a Category 2 Nuclear Hazard facility, during the 15 months it took to depressurize the traps.

July 1989 - September 2001

Head, Engineering Coordination and Analysis Section, Chemical Technology Division. Responsible for a 40 person section (30 professionals) involved with transportation of hazardous materials, production and distribution of stable isotopes, advanced technology assessments, and waste and environmental programs. Technical advisor to Source Evaluation Board Team for the conversion of depleted UF₆ during the summer of 1999. Member of the DOE Spent Nuclear Fuel Program Technical Working Group 1992 through 1995. Acting Manager of the Chem Tech Office of Safety and Operational Readiness from February to August, 1993, and Acting Head of the Chem Tech Research and Development Services Section from July 1994 to April 1995 and again from March 1997 to November 1998.

November 1987 - June 1989

Associate Program Leader for Uranium Processing, Atomic Vapor Laser Isotope Separation (AVLIS) Program, Martin Marietta Energy Systems at Lawrence Livermore National Laboratory. Areas of responsibility included the front and back ends (balance of

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plant) of the AVLIS uranium enrichment process, i.e., the preparation of uranium feed material for AVLIS and processing of enriched uranium product to allow fuel fabrication.

April 1987 - October 1987

Coordinator for Department of Defense projects with the Environmental Control Technology (ECT) Group of the Chemical Technology Division.

July 1985 - March 1987

Task Leader of Nonradiological Wastewater Treatment (NRWT) Project support studies in the ECT Group in Chem Tech. Included operation of a complete pilot facility simulating the NRWT Plant.

August 1982 - June 1985

Group Leader of the Process and Systems Analyses group. Responsible for the use and maintenance of the ASPEN (Advanced System for Process Engineering) computer simulation code. Process simulation work ranged from modeling of synthetic fuels production (direct and indirect liquefaction) to modeling of nuclear fuel reprocessing flowsheets.

April 1979 - July 1982

Performed definitive experimental research and developed a mathematical model describing continuous chromatography using a rotating annular chromatograph. Designed, constructed, and operated three new chromatographs. Served as a consultant to Eastman Kodak, Westinghouse Electric, Stearns Catalytic, and Los Alamos Technical Associates on continuous chromatography between 1979 and 1987.

February 1979

Received registration in Tennessee as a professional engineer, No. 13,114.

October 1977 - March 1979

Performed experimental research into a method of producing uranium dioxide spherical nuclear fuel particles. ORNL received an IR-100 award as a result of this overall effort.

May 1974 - September 1977

Performed experimental research on the hydrodynamics and mass transfer characteristics of various types of contactors. Developed technique to measure the local liquid-phase volume fraction in a three-phase fluidized bed, which was considered to be a significant ORNL achievement.

TEACHING EXPERIENCE

June - August 1987 and September - December 1985

ChE 5210 Process Dynamics, University of Tennessee Oak Ridge Resident Graduate Program, Oak Ridge, Tennessee

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February - May 1987 and February - May 1985
Introduction to ASPEN and Advanced Topics in ASPEN, ORNL In-Hours Continuing Education Program

September - December 1984
ChE/Met/Pol 5050 Engineering Analysis, University of Tennessee Oak Ridge Resident Graduate Program, Oak Ridge, Tennessee

January - February 1984
Introduction to ASPEN, University of Tennessee Space Institute, Tullahoma, Tennessee

PROFESSIONAL ORGANIZATIONS

Member, Institute of Nuclear Materials Management (INMM)

Member, American Institute of Chemical Engineers – Served as an officer of the Knoxville-Oak Ridge Section in varying capacities: Treasurer, Vice-Chairman, and Director

Member, American Nuclear Society Oak Ridge/Knoxville Local Section

Member, Tau Beta Pi – Director of the Great Smoky Mountains Alumnus Chapter for 1984-5

HONORS AND AWARDS

1998 Distinguished Alumni Award from the University of Dayton School of Engineering
1985 Martin Marietta Energy Systems Awards Night, Publication category
1979 RD-100 Award - Gel-Sphere-Pac Nuclear Fuel Fabrication Process
1974 Victor Emmanuel Memorial Award of Excellence in Chemical Engineering
1973 Robert G. Schenck Memorial Award of Excellence for a Junior in Chemical Engineering
1970 University of Dayton Outstanding High School Student Scholarship

REFERENCES

Available upon request.

PUBLICATIONS

Over 50 publications in refereed journals and technical memoranda. See separate Publications list.