

## **SUSAN Y. PICKERING**

### **EXPERIENCE SUMMARY**

Susan Pickering has over 28 years of experience in nuclear-related research and development (R&D), and assurance at Sandia National Laboratories (SNL). She has worked in major areas of the nuclear energy fuel cycle including energy production, storage and transportation of spent fuel, waste disposal, and nuclear weapons. She has led programs to enhance the safety and security of the nuclear energy fuel cycle, and increase its resistance to proliferation. She led the development and implementation of the quality assurance program for the Waste Isolation Pilot Plant (WIPP) which was key to opening the repository. She led the development of assurance processes and procedures for Lab-wide application including risk management, self-assessment, and corrective action. Specific to nuclear weapons, she led the development of the management system covering R&D, design, production, maintenance, and dismantlement.

### **DETAILED EXPERIENCE AT SNL**

#### **Director, Nuclear Energy and Fuel Cycle Programs**

6/2015-5/2017

Responsible for annual revenue of \$60M. Programs and capabilities included nuclear engineering, nuclear safety and risk analysis, nuclear material transportation and storage, repository science and engineering, and nuclear waste performance assessment and regulatory analysis. Customers included federal agencies such as the Nuclear Regulatory Commission and the Department of Energy (DOE), and international organizations from Argentina, Belgium, Japan, Korea, South Africa, Spain, and the United Kingdom.

#### **Senior Manager, Nuclear Energy Safety Technologies**

1/2010-6/2015

Led four departments focused on assessing the safety and security of nuclear energy. Key activities included cyber security, risk assessment, human reliability, severe accidents, fire research, containment integrity and structural analysis, transportation container design and certification, regulatory analysis, quality assurance, and training.

#### **Deputy to Vice President, Weapons Engineering and Product Realization**

12/2006-1/2010

Led the development and implementation of the redesign of the product realization quality management system. Led the integration of corporate initiatives such as Technology Maturation and the Quantification of Margins and Uncertainties into nuclear weapons product realization processes.

#### **Senior Manager, Integrated Laboratory Management System**

10/2001-12/2006

Primary DOE point of contact for contractor assurance and related contractual commitments. Led development and implementation of corporate-wide processes such as risk and issues management, self-assessment, corrective action, and directed allocation of personnel and funding for capital equipment and physical structures.

**Deputy Director, Nuclear Waste Management Program Center**

3/2000-9/2001

Led internal R&D portfolio and co-managed business development activities. Implemented corporate requirements and improved Center operations and processes.

**Department Manager WIPP Quality Assurance (QA)**

4/1996-3/2000

Responsible for all decision-making about the WIPP's QA Program, including design and implementation, negotiations with regulators (EPA, State of NM) and multiple customers (DOE and field offices). Defended program to regulators, public groups, and multiple DOE offices. In less than 10 months, led creation and implementation of nuclear quality assurance program for site characterization, technology demonstrations, performance assessment and software. Led organizational culture change from traditional R&D to regulatory compliance. Provided consulting services to multiple domestic and international organizations

**EDUCATION**

- 1993 Masters of Science, Industrial Engineering, New Mexico State University
- 1985 Bachelors of Science, Biology, University of New Mexico
- 1982 Bachelors of Science, Geology, New Mexico State University

**SELECTED ACHIEVEMENTS**

- US representative to Standing Advisory Group for Nuclear Energy, International Atomic Energy Agency (IAEA). 6/16 to date
- Chair, Executive Board of the Nuclear Installation Safety Division of the American Nuclear Society. 6/15 to 6/16
- Member, Board of Directors for the Girls Scouts New Mexico Trails, Chair of Risk and Policy Committee. 3/10 to 12/14
- Member, ASME NQA-1 National Committee on Nuclear Waste Management. 1998 to 2000
- US representative to Advisory Group on Applying QA to Research and Development Activities in Support of Geologic Disposal, IAEA. 1996
- Certified NQA-1 Lead Auditor. 1994-2000