Keynote Speakers

Marcus Nichol
Executive Director, New Nuclear, NEI

Marc Nichol joined Nuclear Energy Institute (NEI) in 2011 and is the Executive Director of New Nuclear. In this role, he leads industry's efforts to improve the policy, regulatory, and business environment for new and advanced reactors.

Marc has previously worked for Duke Energy, Toshiba America Nuclear Energy and Transnuclear, in the areas of used nuclear fuel management, operations and new plant projects.

Marc holds degrees in Nuclear Engineering from Purdue University and the University of California Berkeley, and an MBA from the University of North Carolina.

Mike Dunkelberger
QA Director, MPR Associates

Mike Dunkelberger has over 25 years in the nuclear power industry. He graduated from Penn State in 1995 with a bachelor's degree in mechanical engineering. After two years working at a vegetable cannery near his hometown of Sunbury, PA, Mike began his nuclear industry career in 1998, working as a Project Engineer with Flowserve in Williamsport, PA. He transitioned to quality assurance in 2000 and moved to the Flowserve facility in Raleigh, NC in 2002. In 2007, Mike became the QA Director of MPR Associates in Alexandria, VA. He is also the current President and Chair of the Nuclear Industry Assessment Corporation (NIAC).

Session 1: State of Practice in Nuclear Quality Assurance

Robert Adams
Southern Company

Robert Adams is currently the Vogtle 3&4 QA Manager. Robert is responsible for leading a team of auditors and surveillance personnel to ensure regulatory compliance. He is also responsible for maintaining the Quality Assurance manual, audit schedule and ensuring the audit teams for the station are appropriately staffed. He came to Vogtle 3&4 in early 2017 as a Lead Auditor in the QA group and took QA supervisory role in 2019. Robert joined SNC at Plant Hatch in 2015 as a NOS Sr. Auditor. Prior to that he was the Authorized Nuclear Inservice Inspector for Plant Hatch for six years. He began working in Nuclear at Watts Bar, Unit 2 construction as an Authorized Nuclear Inspector with Hartford Steam Boiler. Robert received a Senior Reactor Operator Management Certification earlier this year and has over 17 years ASME experience, with 15 of those years in nuclear. Before coming to nuclear, Robert spent six years in manufacturing and design engineering. He holds a B.S. in Mechanical Engineering Technology from Georgia Southern University.

Rachel Kelly Czuba
Sonic Systems

Rachel is the Director of Quality and IT at Sonic Systems. She is currently the ASME NQA Standards Committee co-vice chair and chair of the NQA Subcommittee on Operations and a member of the Subcommittee on Engineering and Procurement Processes. She has been involved in the nuclear industry for more than 30 years starting at Comanche Peak in late 80s during construction. She has held her lead auditor certification since mid-90s through NPPD and Entergy. She left the utility side in 2004 when she moved to Cleveland with her husband and family. She had a quick sidestep into the FDA regulated world at a manufacturer making chemotherapy injectable medicine but returned to the nuclear industry in 2006 performing audits and assisting suppliers develop and improve their QA programs.

Kerri Kavanagh
US NRC

Ms. Kavanagh has been with the US Nuclear Regulatory Commission for over 30 years. Ms. Kavanagh currently is the branch chief of the Quality Assurance and Vendor Inspection Branch, DRO/NRR and has served in the role since 2011. She serves as one of the NRC representatives supporting the development of the American Society of Mechanical Engineers (ASME) Codes and Standards, Section III, Section XI, and NQA-1. Ms. Kavanagh serves on the Committee on Nuclear Regulatory Activities (CNRA) Working

Group Supply Chain (WGSUP), and the chair of the SMR Regulator' Forum Manufacturing, Construction, Commissioning and Operations Working Group.

Roger Sims
Jensen Hughes

Roger has worked in the nuclear industry since 1982, starting at the Bellefonte Nuclear Plant in Alabama. His experience includes working in fire protection programs at various utilities (Carolina Power & Light/Progress Energy, TVA, Boston Edison), as well as DOE work at Savannah River. Roger spent 11 years as the Fire Protection Program Manager at Brunswick Nuclear Plant. In 2004 he joined Jensen Hughes, and became the quality manager in 2009, developing App B/NQA-1 programs, CSA N299.1 program for Canadian nuclear work, and ISO 9001 systems for Concord CA, Ottawa ON, Qatar and Saudi Arabia. Roger holds a BS Mechanical Engineering from University of Tennessee and MBA from University of North Carolina, Wilmington. Roger's certifications include: Manager of Quality / Organizational Excellence (ASQ), Quality Auditor (ASQ), and Lead Nuclear Quality Auditor.

Session 2a: Design and Construction Quality Requirements and Specifications – Civil Structures

Andrew Whittaker
University at Buffalo

Andrew Whittaker is a SUNY Distinguished Professor in the Department of Civil, Structural and Environmental Engineering at the University at Buffalo, and holds a Faculty Joint Appointment at the Idaho National Laboratory. Whittaker is a registered civil and structural engineer (SE) in the State of California. His undergraduate degree in civil engineering is from the University of Melbourne (1977) and his MS (1985) and PhD (1988) degrees are from the University of California, Berkeley.

Andrew Whittaker has contributed to the writing of codes, standards, and guidelines for more than 30 years. He made significant contributions to the first generation of tools for performance-based earthquake engineering (FEMA 273, FEMA 274, FEMA 356, ASCE 41) and led the structural engineering team that developed the second generation of these tools (FEMA P-58). Although developed primarily for the buildings sector, these procedures are being either used directly or adapted for use in seismic analysis, design, and risk assessment of nuclear-energy facilities. Whittaker has served as Chair of the ASCE Nuclear Standards Committee since 2015.

Andrew Whittaker has been recognized in his profession for academic and design-professional contributions to the nuclear energy enterprise in the United States with the 2016 ASCE Stephen D. Bechtel Jr. Energy Award for "significant contributions to the energy sector through promoting the safe design and operation of nuclear power plants and DOE facilities", the 2017 ASCE Walter P. Moore Jr. Award for "demonstrated technical expertise in the development of structural codes and standards", including ASCE nuclear standards, the 2023 ASCE Nathan M. Newmark Medal for "his fundamental contributions to earthquake, blast, impact and performance-based engineering for buildings and mission-critical infrastructure, including advanced nuclear reactors", and the 2023 ANS Untermyer & Cisler Reactor Technology Medal for "contributions and leadership in the development of seismic isolation technology and the corresponding regulatory framework." Whittaker is a Fellow of ASCE, a Fellow of the Structural Engineering Institute of ASCE, a Fellow of the American Concrete Institute, and a member of ANS.

Whittaker consults to federal agencies, regulators, consultancies, contractors, reactor developers, energy companies, and utilities in the United States, Canada, United Kingdom, Europe, and Asia, on topics ranging from micro-reactors to large-light water reactors, to nuclear waste storage facilities, and other mission-critical structures such as giant telescopes.

Brian McDonald
Exponent, Inc.

Dr. Brian McDonald has been a structural engineer for 40 years and is currently a Vice President in Exponent's Silicon Valley office. Dr. McDonald has performed design peer reviews and seismic risk assessments of nuclear power plants and U.S. Department of Energy nuclear facilities. He has also provided expert testimony in licensing and dispute contexts in the US and overseas. In addition to project work, Dr. McDonald co-chairs the ASCE technical committee responsible for maintaining and updating technical standards 4 and 43, which are the topic of today's presentation.

Amit Varma
Purdue Applied Research Institute (PARI)

- Executive Director, Division of Infrastructure Research and Innovative Solutions, Purdue Applied
- Research Institute, LLC, 2022 – present
- Karl H. Kettelhut Professor of Civil Engineering, Purdue University, 2004 – present
- Director, Bowen Laboratory of Large-Scale CE Research, Lyles School of Civil Engineering, 2017-present

Prof. Varma has dedicated his academic and professional life to the development and construction of innovative and efficient structures for the built infrastructure including commercial, industrial, transportation, energy sector including nuclear power, and defense / national security.

Areas of expertise: Large-scale / full-scale testing, Numerical analysis, Design for various loading scenarios, constructability, assessment, inspection, evaluation, repair, retrofit, and disposition of construction deviations, flaws.

Some Highlights of Prof. Varma's Skills, Experience, and Accomplishments:

- Over 25-years of teaching and research experience
- Over 15-years of experience as a consultant/SME for various sectors of the industry
- Skilled at using mechanics, advanced FEA, and structural testing for problem-solving
- Leading large industry teams to implement challenging / innovative construction solutions and technologies for various infrastructure sectors
- Well known for his ability to solve complex problems and explaining the resulting answers / solutions to diverse audiences (industry practitioners, regulators, construction groups)
- Prominent leader in the AISC / ACI / ASCE / ASME codes / standards communities – Prof. Varma's work has been extensively utilized/cited for many provisions
- Honored with multiple prestigious professional awards – ASCE's Bechtel Energy Award, Shortridge Hardesty Award, and Alfred Noble Prize; AISC's Special Achievement Award and Higgins Award; Bechtel's Innovation of the Year Award, Purdue University's Seeds for Success Acorn Awards, etc.

Sanjeev "Sanj" Malushte
Purdue Advanced Research Institute (PARI)

- Sr. Director of Technology, Division of Infrastructure Research and Innovative Solutions, Purdue Applied Research Institute, 2022 - present
- Distinguished Fellow, Research Professor, Purdue Applied Research Institute, 2022 – present
- Affiliate Faculty Appointment, School of Civil and Construction Engineering, Purdue University, 2022 – present
- Former Bechtel Fellow, Technology Manager, and Senior Advisor for Structural and Earthquake Engineering, Bechtel Corporation (1989-2022)
- Former Adjunct (part-time) Faculty Member, Johns Hopkins University, Graduate Structural Engineering Program (1999-2014)

Dr. Malushte has over 35 years of diverse experience as a researcher, adjunct faculty, practicing civil / structural design engineer, engineering supervisor, resident engineer, assistant chief engineer, project engineer, technology manager/director, and senior technical advisor

Areas of expertise: Seismic analysis/design/qualification, steel/concrete/composite design, steel-plate composite (SC) design, use/application of US/international structural/seismic codes and standards, analysis/design for impact loads, blast design, FE analysis, and machinery foundation.

Some Highlights of Dr. Malushte's Skills, Experience, and Accomplishments:

- Over 33-years of fulltime industry experience at Bechtel as a structural engineer / SME
- Over 15-years of part-time or fulltime teaching and research experience at Purdue, Johns Hopkins, and Virginia Tech
- Consultant / Peer Reviewer to various infrastructure companies and government agencies
- Known for pursuing innovative structural solutions for energy/nuclear/defense facilities
- Well-regarded for broad structural engineering expertise and ability to communicate well with practitioners, code committee members, researchers, and fabricators/constructors
- Current or past active member of many AISC, ACI, ASME, and ASCE codes / standards – has helped bring forward many industry issues and incorporate latest research findings
- Fellow of ASCE and ICE (UK); Former Bechtel Fellow
- Licensed Civil, Structural, and Mechanical Engineer in many US states and UK
- Recognized with ASCE's Bechtel Energy Award; Bechtel's Innovation of the Year Award, Purdue University's Seeds for Success Acorn Award, induction into Virginia Tech College of Engineering Committee of 100, election as a Virginia Tech Distinguished Civil Engineering Alumnus, etc.

Session 2b: Design and Construction Quality Requirements and Specifications – Mechanical Structures and Components

Suzanne McKillop
MPR Associates

Over the course of her 15-year career at MPR Associates, Suzanne McKillop has supported and led a variety of projects in the nuclear industry, most notably the design of several small modular and advanced reactors.

Mrs. McKillop is an industrywide leader in design and analysis of pressure boundary components to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section III "Rule for Construction of Nuclear Facility Components." She actively participates in ASME Code committees, currently serving as both the Vice Chair to the Design Subcommittee, and as the Chair to the Design Methods Subgroup as well as a voting member of the Section III Standard Committee.

Through her work with ASME and clients, she has supported strategic initiative within both Section III and industry-leading organizations like the Electric Power Research Institute (EPRI). Mrs. McKillop has served as the lead author of the EPRI Report focusing on cost effective implementation of Section III construction requirements, commensurate with contribution to safety and risk.

Mrs. McKillop earned her Bachelor of Science in Mechanical Engineering from North Carolina State University and her Master of Science in Mechanical Engineering at the Georgia Institute of Technology. She is a registered Professional Engineer in Virginia and Washington state.

Brett McGlone
NuSource LLC

Brett is the Quality Assurance Manager at NuSource LLC, an MPR-Gavial Company. He has over 20 years of experience in the nuclear power industry. His experience includes developing and leading nuclear quality assurance programs, as an Authorized Nuclear Inspector Supervisor, and serving as an operator in the US Navy Nuclear Program. Brett is a member of the ASME BPV III Committee on the construction of nuclear facility components and the chair of the ASME BPV III Subgroup on General Requirements.

Mike Lockwood
Hartford Steam Boiler

Mike Lockwood is the Vice President of Code Services at The Hartford Steam Boiler Inspection and Insurance Company (HSB), a position he has held since 2009. HSB is a global leader in providing

inspection and engineering services for pressure equipment, with over 600 employees worldwide. HSB is part of Munich Re, a leading global reinsurance company.

Mike's career with HSB began in 1996, following his eight years of service in the U.S. Navy, where he worked as a nuclear plant operator. Since joining HSB, Mike has held a variety of increasingly responsible roles within the company's nuclear business. His key positions have included managing HSB's nuclear operations for U.S.

Mike holds an MBA from the Kelley School of Business at Indiana University and a Bachelor of Science in Applied Science and Technology (BSAST) in Nuclear Technology from Thomas Edison State University.

A recognized expert in the field, Mike is actively involved in several ASME key boiler and pressure vessel committees, including:

- Vice Chair, Board for Conformity Assessments (BCA)
- Board Member, Board for Nuclear Codes and Standards (BNCS)
- Vice Chair, Committee for Nuclear Certification (CNC)
- Member, BPV Committee on Construction of Nuclear Facility Components (III)

Session 3: Initiatives to Address Nuclear Quality Assurance Challenges

Rachel Kelley Czuba
Sonic Systems

Rachel is the Director of Quality and IT at Sonic Systems. She is currently the ASME NQA Standards Committee co-vice chair and chair of the NQA Subcommittee on Operations and a member of the Subcommittee on Engineering and Procurement Processes.

She has been involved in the nuclear industry for more than 30 years starting at Comanche Peak in late 80s during construction. She has held her lead auditor certification since mid-90s through NPPD and Entergy. She left the utility side in 2004 when she moved to Cleveland with her husband and family. She had a quick sidestep into the FDA regulated world at a manufacturer making chemotherapy injectable medicine but returned to the nuclear industry in 2006 performing audits and assisting suppliers develop and improve their QA programs.

She holds a BS in Math and Computer Information Systems.

Rachel Romano
MPR Associates

Rachel Romano is an experienced engineer at MPR Associates, Inc., where she has engaged clients on a variety of projects in both commercial operating nuclear and advanced nuclear. Her diverse background includes mechanical design, thermal hydraulic and fluid flow analyses, codes and standards development, fabrication and testing oversight, and project management. Rachel holds a Bachelor's Degree in Mechanical Engineering from the University of Maryland, where she graduated Summa Cum Laude.

Rachel's technical background and leadership earned her the role of Secretary of the ASME BPVC Section III Task Group on Alternate Requirements in 2021. She has continued in this role while also supporting the Section III alternate requirements project as a technical lead. Through this project, Rachel and the Task Group are pushing an industry-wide paradigm shift to recognize risk-based treatments and address the unique design aspects of advanced reactors in the Code through alternate requirements for material procurement, non-destructive examination and testing, and quality assurance.

Mark Richter
NEI

Mark is a Technical Advisor at the Nuclear Energy Institute. He manages NEI's Used Fuel Dry Storage Management and Transportation Task Force, supply chain and quality programs associated with

advanced reactors, and materials degradation areas. He's been with NEI for 13 years, after spending nearly 25 years with Constellation Energy. He has a Bachelor of Mechanical Engineering and Master of Applied Science in Metallurgy from the University of Delaware, and a Doctorate in Materials Science and Engineering from the Johns Hopkins University.

John Richards
EPRI

John Richards is a Senior Technical Executive in the Risk and Safety Management group at EPRI. John joined EPRI in 2012 and leads EPRI's seismic risk research, focusing primarily on seismic probabilistic risk assessment (SPRA) methods and applications of seismic risk insights. Prior to joining EPRI, John worked for 30 years at Duke Energy, where he performed and managed all aspects of seismic qualification activities at Duke Energy's nuclear plants.

Session 4: Reactor Developer Perspectives on Opportunities for Improvement

Fred Grant
SGH

Fred is a Principal at SGH, where he leads the structural mechanics group in Newport Beach, which specializes in structural reliability, dynamic structure response analysis, and seismic fragility analysis. Over the course of his career, he has led EPRI research projects around structural risk and reliability and risk-informed performance-based design for external hazards. He and others at SGH are currently supporting several AR developers in implementing risk-informed performance-based design methods for structural design.

Dennis Klein
MPR Associates

Dennis Klein is the Vice President of New Nuclear Development where he leads MPR's team generating solutions for multiple clients on the design, application, and deployment of new reactor technologies.

Raj Sekar
Aalo Atomics

Raj Sekar is the Principal Advisor for QA at Aalo Atomics, bringing extensive experience in global QA programs across industries like Aerospace, Oil & Gas, and Nuclear. He has been a pioneer in supporting licensing efforts for advanced modular reactor organizations.

Douglas Crawford
Antares Nuclear

Douglas Crawford is the Head of Quality at Antares Nuclear, where he established and implemented the company's NQA-1 program early in its development. With over 18 years of experience in quality assurance and manufacturing engineering, he has played a pivotal role in SpaceX's first manned spaceflight, led design and quality advancements at ByFusion, and developed advanced manufacturing processes at Pratt & Whitney.

Abbey Donahue
BWXT

Abbey Donahue is the Chief Engineer for the BWXT Advanced Nuclear Reactor. Abbey has nearly 20 years of experience ranging from power plant operations, nuclear core design and analysis, used fuel management, and first-of-a-kind nuclear construction.

Joe Halackna
Westinghouse

Joe has supported the rapid technology maturation of the eVinci microreactor since 2018 after working in various roles on the AP1000 design for more than 10 years. He has led teams of engineers and researchers through nuclear systems engineering, materials research, and advanced manufacturing implementation and is currently Chief Technologist of the eVinci and AstroVinci microreactor products.

Session 5: Brainstorming Potential Solutions and their Feasibility

Spencer Daw
Idaho National Laboratory

Spencer is the Director of Quality, an Idaho National Laboratory Fellow, a subject matter expert in procurement engineering and commercial grade dedication. He is a member of the ASME NQA-1 main committee and the sub-committee on Engineering and Procurement Processes (ScEPP) as well as the chair of the EFCOG Procurement Engineering Task group. He has been published in EFCOG White Papers and participated on EPRI document development teams. These roles combined with 15 years of experience in procurement engineering within the DOE have made Spencer a nationally recognized expert in the specialized field of procuring safety significant / safety class / safety related items. Currently, Spencer is playing an integral role in INL's National Reactor Innovation Center program by aiding reactor developers in their transition from design to fabrication and start up.

Prior to working in the nuclear industry, Spencer worked in the aerospace and electronics industry. Most notably, Spencer was the New Product Introduction Manager for the Boeing 787 landing gear system. Spencer's education and professional certifications include:

- Bachelor of Science in Manufacturing Engineering Technology from Brigham Young University
- Masters Degree in Engineering and Technology Management from Washington State University
- Licensed Professional Engineer

Svetlana Lawrence
Idaho National Laboratory

Ms. Lawrence is the Risk Phenomena Modeling department manager and the lead for the Risk-Informed Systems Analysis (RISA) Pathway at the Idaho National Laboratory. RISA is one of the research areas of the Light Water Reactor Sustainability Program of the U.S. Department of Energy (DOE). RISA pathway conducts research and development that supports the U.S. nuclear industry with the aim to improve economics, reliability, and sustain safety of nuclear plants over the extended period of plant operations.

As the pathway lead, Ms. Lawrence is involved in multiple research areas including but not limited to plant enhancement and modernization, risk-informed asset management, enhanced hazards analyses, risk assessment of digital I&C systems, human reliability analysis (HRA), dynamic risk assessments, reactor core fuel reload optimization, risk-informed compliance, modernization of regulatory framework through application of risk-informed performance-based approaches, and improvements of PRA tools. Most recently, Ms. Lawrence promoted research and development (R&D) to support important and urgent industry initiatives of power uprates and risk-informed aging management. Both initiatives offer a great opportunity to improve competitiveness of the nation's operating nuclear power plants and are now supported by the LWRS program under RISA pathway. Ms. Lawrence is also engaged in R&D outside LWRS program, including the project under the DOE's Advanced Reactor Regulatory Development

Program supporting Reliability and Integrity Management (RIM) Program and a project for the Nuclear Regulatory Commission titled Technical Support for Component Reliability and Graphite Integrity Assessment.

As a pathway lead, Ms. Lawrence investigates product lines and solutions with a potential to provide cost savings, better risk insights, improvements in operational practices, and other benefits enabled by risk-informed performance-based approaches, modern tools and methods for phenomena-based and physics-based analyses, advanced modeling of complex systems and scenarios, and risk-informed decision-making. As a subject-matter expert in risk assessments, Ms. Lawrence constantly researches the most up-to-date practices within industry and academia, studies newly-issued industry and regulatory standards, regularly participates in industry events, and is engaged with multiple industry organizations such as ASME, ANS, NRC, NEI, EPRI, and reactor owners groups.

Outside of job responsibilities, Ms. Lawrence actively participates in industry initiatives. She is a member of ASME's Plant Systems Design Standard Committee, risk-informed emergency planning working group, and of two ANS committees: Risk-informed, Performance-based Principles and Policy Committee and Large Light Water Reactor Consensus Committee, and she is a member of two working groups: ANS-GD-3.8 "Guidance for Risk-Informing Emergency Preparedness Programs for Nuclear Facilities" and ANS-30.2 "Structure, System, and Component Classification for New Nuclear Power Plants."

Ms. Lawrence is a Probabilistic Risk Assessment (PRA) engineer with a MS degree in Reliability Engineering and she is currently pursuing a PhD degree in Systems Engineering. She has over twenty years of engineering experience with over ten years of experience working for the nuclear industry and she is a licensed Professional Engineer in the state of Texas.

As part of her previous career at Enercon Services, Ms. Lawrence was a Lead Responsible Engineer (LRE) and served as a PRA marketing lead. She was nominated for and completed a corporate Emerging Leaders Training program. Prior to the PRA career, Ms. Lawrence served as a senior civil engineer working on engineering and technical analyses for the Combined Operating License Applications (COLA), Early Site Permits (ESP), and Updated Final Safety Analysis Reports (UFSAR) for multiple nuclear utilities.

Education and Training

- B.S., Civil Engineering (structural), Ukraine, 1999
- Master of Engineering in Reliability Engineering, University of Maryland, 2016
- Pursuing Ph.D. in Systems Engineering at Colorado State University

Professional Certifications, Memberships and Affiliations

- Registered Professional Engineer, State of Texas, License No. 101268
- INCOSE Associate Systems Engineering Professional, Certification No. 07829

Jason Christensen
Idaho National Laboratory

Jason has worked in the nuclear industry since June 2009. He started his career as a nuclear engineer at Newport News Shipbuilding, where he worked on refueling and complex overhauls of US Navy nuclear-powered aircraft carriers. In 2012, Mr. Christensen began working as a Construction

Inspector/Mechanical Engineer at the US Nuclear Regulatory Commission in Atlanta, GA. In this role, he performed inspections and led inspection teams at new construction (AP1000 and Watts Bar Unit 2-Westinghouse 4-loop) and operating nuclear plants. His support of new reactors led to taking a position in the Office of Research at NRC Headquarters in Rockville, MD. His position as a materials engineer allowed him to focus on regulatory development of advanced manufacturing techniques and advanced reactors.

Jason joined Idaho National Laboratory (INL) in 2019 and performs regulatory development and support for advanced reactors (ARs) and small modular reactors (SMRs). He performs a significant portion of his work for the Department of Energy (DOE) in regulatory development of small modular and advanced nuclear reactors. His work in this area includes risk-informed licensing processes that are technology-inclusive to support ARs and SMRs. He is also the regulatory lead for the DOE Microreactor Program. In addition to this work, Jason supports the NRC's construction inspection program development for ARs and SMRs. Most recently, he has been supporting international activities through DOE and Department of State.

Mr. Christensen holds a Bachelor of Science in Mechanical Engineering from Virginia Tech and a Master of Science in Engineering Management from George Washington University.

Ross Hays
Idaho National Laboratory

Ross Hays is a digital engineering researcher in the Autonomous Engineering Department at the Idaho National Laboratory. He works on a team to develop new tools for linking engineering data, workflows, and analyses using a combination of off-the-shelf tools and open data standards to improve design process efficiency and traceability.

Norman Moreau
Theseus Quality Assurance

Norman P. Moreau, P.E., ASME Fellow and Instructor, CSQE, CQA, Senior Principal Consultant for Theseus Quality Assurance, the QA arm of InfoTech NorthStar. Mr. Moreau's emphasis in the nuclear industry is in the realm of Quality Assurance. His extensive experience spans over 35 years, with significant contributions to software QA, records management, design control, and commercial grade dedication. His active participation since 1992 in the ASME NQA-1 Committee on Nuclear Quality Assurance highlights his dedication to the field.

Some of his notable achievements include:

- Leading the implementation of NQA-1 for a CFD and FEA developer.
- Heading a team of technical and QA reviewers for software lifecycle applications in small and micro reactor facilities.
- Serving as a lead auditor and technical specialist for SQA and design control audits.

He holds a Bachelor of Science degree in Mechanical Engineering and Master of Science and Administration in Software Engineering Administration. He has frequently authored and delivered presentations on software QA.

- Nuclear QA Auditor Training Handbook, ASQ Energy & Environmental Division, to be published in 2019, contributor
- Plant Engineering: Guideline for the Acceptance of Commercial-Grade Design and Analysis Computer Programs Used in Nuclear Safety-Related Applications, EPRI TP 1025243, Final Report June 2012, contributing member.
- Handbook of Software Quality Assurance Editor, G. Gordon Schulmeyer, author of Chapter 14, “Quality Management in IT” 4th Edition, 2008
- Auditing Software Used in Environmental, Health, and Safety Programs, Environmental Health and Safety Auditing Handbook (Supplement to 1997 Edition), McGraw-Hill, New York, NY
- ASME NQA-1 Requirements for Computer Software used in Nuclear Facilities
- Software Dedication: Utilization of Commercial Grade Computer Programs Used for Design and Analysis in the Nuclear Industry