ASME NQA-1 Applied to Software Used at DOE Facilities, Course No. NU0323IL

Brief Course Description: Software impacts nearly every aspect of a nuclear facility. Adequate controls must be in place to assure the safety and health of personnel and the public and the effective and efficient operation of facility equipment. To assure such controls are in place regulations, standards, and guidance need to be applied to the acquisition, development, operation, maintenance and retirement of software. This three day course will examine the specific regulations, standards and guidance applicable to software used at Department of Energy nuclear facilities.

The three day course begins with an overview of the structure of ASME NQA-1 followed with a close review of how NQA-1 applies to software. With a clear understanding of NQA-1 as it applies to software the course continues with a discussion of the DOE requirements (DOE O 414.1C/D) and guidance (DOE G 414.1-4) related to software. The course finishes with a discussion of how to audit and assess software related projects.

Key Topics Covered
- Regulations, standards, and guidance related to software
- Software types and evolution of software at nuclear facilities
- Relationship between DOE Order O 414.1C/D and ASME NQA-1
- Applying NQA-1 and DOE G 414.1-4 to safety and non-safety software
- Dedicated Software

Who Should Attend: Design engineers, software engineers, quality engineers, regulators, procurement personnel, program managers, and auditors.

Prerequisites: All participants are expected to bring a copy of 1) ASME-NQA-1-2000 or later edition, 2) DOE O 414.1C/D, Quality Assurance, and 3) DOE G 414-1.4, Safety Software Guide for use with 10 CFR 830 Subpart A, Quality Assurance Requirements.

Course Fee: $1,295
Course Location: Argonne National Laboratory, 9700 S. Cass Avenue, Lemont, IL
Date(s): May 21-23, 8:00 am – 5:00 pm

Instructor(s):
Nancy M. Kyle has nearly thirty years of software experience in government nuclear and non-nuclear facilities. Her professional areas of expertise include software quality assurance, software engineering, process control engineering management, information technology management, strategic planning, and change management, with experience developing, implementing and assessing programs and processes compliant with ASME NQA-1 (1989, 2000, 2004, 2008 w/2009 addenda), 10 CFR 50 Appendix B, 10 CFR 830 Appendix A, DOE O 414.1 C, DOE 0333P, ISO 9000, and Software Engineering Institute’s Capability Maturity Model Integrated (SEI-CMMI). Nancy has performed numerous assessments of software quality assurance program compliance throughout the Department of Energy Complex as well as performing supplier qualification audits for DOE projects.

Norm Moreau is the President and Senior Management Consultant for Theseus Professional Services, has over 30 years of experience in quality and process management, project management, engineering, and organizational administration. Mr. Moreau has been a member of the ASME since 1982 and since 1990 has been an active participant on the ASME NQA-1 Committee on NQA. His significant contributions have been in the areas QA for computer software, records management, and commercial grade dedication. He has been on the Main Committee since 2002 and from 2004 to 2008 he served as the Vice Chair, Subcommittee on Engineering and Procurement Processes. In 2008 he was elected to lead the newly formed Subcommittee on Software Quality Assurance. He is now also a member of the Executive Committee. Mr. Moreau received his B.S. in Mechanical Engineer and his M.S.A. in Software Engineering Administration. He is a practicing ISO 9001 and NQA-1 certified lead auditor.

To register for this course, please go to www.theseuspro.com and click on the Training link.

Cancellations: Theseus reserves the right to impose a $75 charge for cancellations received 7 days prior to the course. We may impose a full fee for no shows. Substitutions are accepted at anytime.
1. Visitor Center #224 and Main Gate #291
2. Building #201, Conference Room 3A – the first day of class
3. TCS Building #240, Rooms 1404 and 1405 – the second and third days of class
4. Building #460 – the Argonne Guest House for overnight stay if selected by the attendee

For GPS purposes, the address for Argonne National Laboratory is:
   9800 S. Cass Ave.
   Argonne, IL 60439
If this doesn’t work in a GPS, then sometimes substituting Lemont, IL 60439 for Argonne, IL 60439 works.
Please note courses require payment before attendance. Thank you.