



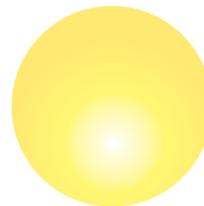
A new **ASME** program seeks to support a robust **global supply chain** for the nuclear industry.

BY JOSEPH PANG AND CHRIS MÄHLER





AN ASME AUDIT TEAM WILL ASSESS A SUPPLIER'S CAPABILITY IN IMPLEMENTING ITS QUALITY ASSURANCE PROGRAM TO COMPLY WITH REQUIREMENTS OF THE NQA-1 STANDARD, AND WILL ISSUE A CERTIFICATE AFFIRMING THAT THE COMPANY HAS BEEN FOUND IN COMPLIANCE.



The nuclear industry plays an important role in energy, science, innovation, and national security, and in addressing the current and future nuclear challenges of the environment. The business environment has been cyclical, but has been active since the creation of the first man-made reactor, known as Chicago Pile-1, in 1942. Having an adequate supply chain is essential in supporting the industry's needs and cultivating continued advancement in the field of nuclear science and engineering. Entering into the supply chain and ensuring a commitment in establishing and maintaining a nuclear quality culture within the supply chain is no easy feat and a costly endeavor for all involved.

It's a daunting task for companies to understand and meet the numerous requirements imposed upon them within this highly regulated industry. ASME has been in the forefront in developing consensus standards as a means of complying with regulations imposed by governmental authorities, such as the Department of Energy and Nuclear Regulatory Commission in the United States. The ASME NQA-1 *Quality Assurance Requirements for Nuclear Facility Applications* is internationally recognized.

The NRC Regulatory Guide 1.28, June 2010, Revision 4, endorses the NQA-1-2008 edition and NQA-1a-2009 Addenda with exceptions and modifications. This endorsement along with thousands of sales to users of the standard in over 40 countries reflects ASME's ability to work with industry in publishing a consensus standard establishing the current understanding of quality assurance requirements necessary to achieve safe, reliable, and efficient utilization of nuclear energy, and management and processing of radioactive materials.

ASME's experience in publishing an internationally recognized standard on quality assurance for the nuclear industry has led it to promote the growth of a strong supply chain through the rollout of a new certification program. Although the ASME NQA-1 standard sets forth the requirements for establishing and executing a nuclear quality assurance program, being a performance-based standard (as opposed to a highly prescriptive design standard) the application and flow down of QA requirements could possibly be misunderstood or misapplied.

In an effort to promote the proper application of the NQA-1 require-



ments, ASME worked with industry leaders in the field of quality assurance, members from the NQA Standards Committee and its Subcommittees, and the Committee on Nuclear Certification, to develop the NQA-1 Certification Program. It was officially launched in February 2012 and was formally introduced to the world at the August 2012 ICONNE conference in Anaheim, Calif.

Under the program, an ASME audit team will assess a company's quality assurance program. It will make an accurate assessment of a supplier's capability in implementing its QA program in compliance with the NQA-1 standard, and will issue a certificate affirming that the company has been found in compliance.

The NQA-1 Certification Program was developed to help suppliers gain entry into the supply chain and to reduce purchasers' risk, time, and cost of evaluating and qualifying suppliers. An ASME NQA-1 Quality Program Certificate would signify to purchasers that suppliers have a nuclear quality assurance culture in place and whether the QA program has been frozen to a specific edition/addenda of the NQA-1 Standard or updated to continually meet the latest edition.

It attempts to create a level playing field through consistent application of the NQA-1 standard throughout the supply chain, and identify in

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an ASME public database those companies that have established and maintained an NQA-1 quality assurance program.

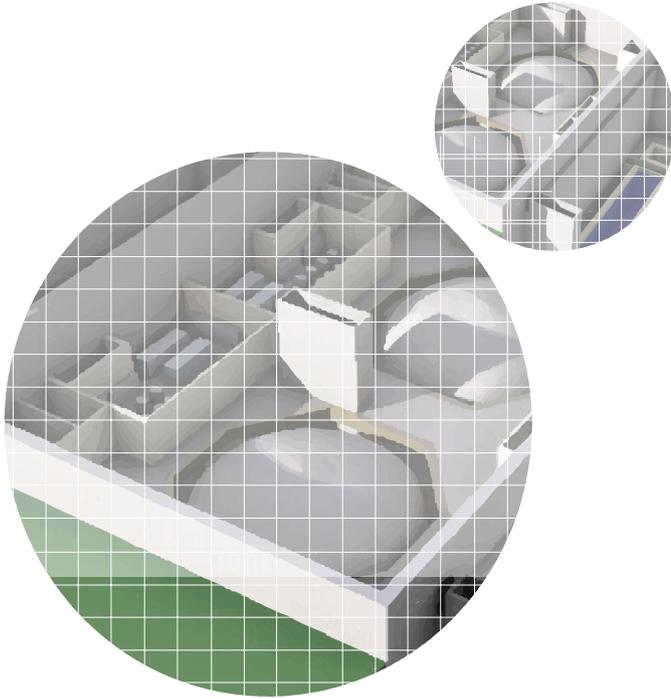
Safeguards are in place for ASME to avoid a possible conflict of interest by having the certification program developed and administered by the ASME Conformity Assessment Department, a department independent of the one approving and publishing the ASME NQA-1 Standard. In addition, provisions for due process are in place for the resolution of disputes between ASME and the applicant or certificate holder.

The NQA-1 Quality Program Certificate is available to organizations around the globe implementing a nuclear quality assurance program in conformance with the ASME NQA-1 Standard (2008 edition and later editions and addenda). Certification is based upon a full and complete audit of the program initially and two interim audits within a three-year certification period. The competitive pressure for businesses to reduce operating costs and streamline operations may have a negative impact on QA activities, so the two interim audits are performed to verify that the QA program is being maintained and continues to be in compliance with the NQA-1 standard. The cycle repeats itself in the latter part of the third year, and if ASME determines that the company remains in compliance, certification is renewed.

The ASME audit team will visit all locations where the nuclear quality assurance program is being implemented and will require a company to implement or demonstrate all aspects of its program. The review of the supplier's QA manual and the on-site audit will be the basis of the team's report in conveying to ASME the company's capabilities, knowledge, and understanding of its program and of the ASME NQA-1 standard. With regard to the QA manual, it is evaluated by the audit team for acceptance as an auditable document establishing the controls for the execution of the QA program rather than a reiteration of the NQA-1 standard. It is the basis for the audit team to develop its audit checklist of the program and to conduct the audits, including the interim audits.

The first company to sign up for the NQA-1 certification program was Premier Technology Inc. of Blackfoot, Idaho. Premier is a multi-service organization with approximate 250 employees including 27 in its quality assurance department. Premier designs and manufactures for the government and for many different lines of commercial businesses—nuclear, oil and gas, and food and beverage.

Mathew Burke, quality assurance manager at Premier, heard



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about the program in 2012 at the annual meeting of the Nuclear Industry Assessment Committee, an organization of quality assurance professionals (www.niacusa.org). Rusty DeKleine, NIAC’s chairman, discussed the program and asked if there were any interested parties.

Burke had been looking at ways to verify the strength of his QA program and with the full support of Premier’s owners, Shelly and Doug Sayer, began to determine how to become the first company certified under the NQA-1 Certification Program.

Burke arranged to have ASME come on site to present the program to Premier. “We knew we wanted to be the first company to go through the certification process, but before we did we wanted to understand the entire scope of the program,” Burke said. “ASME came in and presented the program to our senior management in a way that made sound business sense for what we were looking to accomplish. Together we worked on the application, identifying the elements we were interested in getting certified, and discussed the timeframes for the audit and resources they [ASME] would need to make the process flow as smooth as possible. Within several hours, we had a firm understanding of the program and the application was completed.”

In November 2013, Burke returned to the annual NIAC meeting to update the membership on Premier’s participation in the NQA-1 Certification Program. He detailed the program from the application process, through the three-day on-site audit, to

receipt of the NQA-1 Quality Program Certificate.

Burke said that Premier was able to secure contracts outside of the nuclear business sector due to successfully completing and being awarded the NQA-1 certification. According to Burke, “By having ASME certify our NQA-1 QA program, we are able to show our understanding and commitment to quality not only to the nuclear segment but also to organizations outside our core sectors, in this case, the oil and gas and aerospace industries. When we presented to them and told them we had completed the NQA-1 certification with ASME, they knew we had a sound QA program in place and it added an extra level of comfort for them in that we had a firm understanding and commitment to quality that extended throughout the entire organization.”

According to Burke, “This certification program was by no means something that should be taken lightly.” He told the NIAC membership that “the ASME NQA-1 audit team was very professional and knowledgeable.

“The team had performed an extremely thorough and intensive audit, more than we had anticipated. However, because of it, it helped us identify gaps in our process,” he said. “It allowed us to take corrective measures and in the end made our QA program better because of it.”

One of the questions asked by an audience member during the Q&A segment of the presentation was, “Would you do it again and was it worth it?” to which Burke answered, “Absolutely.” **ME**

THE ASME NQA-1 *QUALITY ASSURANCE REQUIREMENTS FOR NUCLEAR FACILITY APPLICATIONS* IS INTERNATIONALLY RECOGNIZED.

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