

# ASME NQA COMMITTEE CORRESPONDENCE

Date: June 7, 2005

To: Mr. Paul Prescott (Member-NQA Subcommittee on Assessment and Verification)  
Office of Nuclear Reactor Regulation  
US Nuclear Regulatory Commission  
NRC One White Flint North

RE: Merits of NQA-1-2004 or Later NQA Editions for Application to New Generation

Dear Paul:

NQA-1-2004 is the current published version of the national consensus Standard maintained by the ASME NQA Committee. The primary objective of NQA-1 is to focus on those quality activities and programs that are necessary to maintain the public safety. Since its initial publication in 1979, the NQA Committee has continued to develop the Standard to provide additional clarification for developing QA programs in compliance with 10 CFR 50 Appendix B. The NQA Committee has incorporated the quality experiences gained over the last twenty-five years by the nuclear utilities and the Department of Energy into a series of Standard revisions.

It is essential that the next generation of nuclear power plants employ the latest technology, utilize risk-informed concepts of 10 CFR 50.69, and apply a QA Standard that addresses current issues and regulatory requirements. Some of the major additions to the NQA Standard in recent years include the following:

- Configuration Management
- Computer Software
- Commercial Grade Items
- Corrective Action
- Electronic Records and Data
- Performance Based Auditing
- Design Organization Controls

The 1997 edition of NQA-1 was a major revision of the Standard that focused on performance base or objective driven criteria with less emphasis on prescriptive detail. In addition, the 1997 edition was an opportunity to remove redundancy, capture the maturity and experience of the industry, and ensure that the criteria contributed to safe reliable plant operation. This approach was not well received by the NRC and for a period of time there was little productive interface with the NQA Committee.

However, the NRC/NQA interface started to improve in 1999 due to actions by the Board of Nuclear Codes and Standards to hold direct discussions with the NRC staff. Although there was no NRC endorsement of later NQA-1 editions from this effort, the level of NRC participation on the Committee improved and actions began to identify regulatory concerns. Parallel actions by utilities resulted in the acceptance of NQA-1-1994 through the 10 CFR 50.54.a process and today over 40 units are using or changing their programs to NQA-1-1994. This shows the willingness of utilities to upgrade to the latest regulatory endorsed quality requirements.

The NQA Committee's current interface with the NRC is very positive and we expect to obtain the NRC's comments on NQA-1-2000 in June 2005. From our previous discussions the NRC comments appear to fall into interpretation of 10CFR50 Appendix B criteria into Standard criteria language and the level of prescriptive detail needed to assure compliance of an organization utilizing NQA-1 as the basis for developing a QA program, FSAR, or potentially a COL.

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A solution to the NRC's comments appears to be possible because the Committee's intent is to comply with 10CFR50 Appendix B and the Committee's belief that the level of detail provided in the PART III, Nonmandatory Appendices is an acceptable method for compliance with the basic QA requirements contained in NQA-1 Part I. In fact, some of the NRC concerns may have already been incorporated into NQA-1-2004. The next edition of NQA-1 will also address the risk-informed criteria and should contain a new updated Appendix 17A-1 that reflects current QA record activities. Both of these additions should be attractive to organizations considering new generation.

The NQA Committee wants the next edition of the NQA Standard, NQA-1-2007, to be endorsed by the NRC and utilized by the utilities for the next generation of nuclear power plants. The NQA Committee believes that we can work in the spirit of cooperation with both the users and regulatory body to achieve this goal. This would result in significant cost saving by having all organizations following the same QA criteria.

Another area that needs some focus is NQA -1, Part II, Quality Assurance Requirements for Nuclear Facility Applications. The NQA-1 Committee initially incorporated selected N45.2 Standards into NQA-2 and later into NQA-1, Part II to provide a mechanism for their maintenance and interpretation. With the 20 year lull in construction, we need to again focus on updating these "how to" application standards to ensure the latest technologies and controls are available to support new generation. The original N45.2 documents cannot be revised but we can revise NQA-1.

After we have reached agreement as an industry, we need to avoid the stagnation that previously occurred with a given edition of a quality standard. The Committee would anticipate that future editions of NQA-1 would be acceptable to the NRC and endorsed through some standard regulatory process. Utilities and other NQA users would also have a way of revising their programs with a minimum of regulatory effort.

To help achieve the above results, the NQA Committee voted in April 2005 to form a New Generation Task Group. We already have the nucleus for the Task Group but hope to increase NQA membership from organizations involved in new generation. One goal of this group will be to expedite NQA actions to support the new generation schedules and regulatory review process. Our first regular Task Group meeting will be at the October 2005 meeting, but there may be some initial organizational meeting and Committee assignments this summer.

If you have any questions, please do not hesitate to contact me or the NQA Vice Chair, Mr. Terry Dunn.

Sincerely,



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cc: NQA Executive Committee  
S. Rossi (ASME Secretary)  
Rich McIntyre (NRC/NQA Main Committee member)