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AN AMERICAN NATIONAL STANDARD

ANSI/ASME NQA-1a-1986

ADDENDA

to

ANSI/ASME NQA-1-1986 EDITION
QUALITY ASSURANCE PROGRAM
REQUIREMENTS FOR NUCLEAR FACILITIES

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ANSI/ASME NQA-1a-1986

Following approval by the Main Committee of the Committee on Nuclear Quality Assurance, and after public review, ANSI/ASME NQA-1a-1986 was approved by the American National Standards Institute on December 31, 1986.

Addenda to the 1986 Edition of ANSI/ASME NQA-1 are issued in the form of replacement pages. Revisions, additions, and deletions are incorporated directly into the affected pages. It is advisable, however, that this page, the Addenda title and copyright pages, and all replaced pages be retained for reference.

SUMMARY OF CHANGES

This is the first Addenda to be published to ANSI/ASME NQA-1-1986 Edition.

Changes given below are identified on the indicated pages by a margin note, 1a-86, placed next to the affected area. The pages not listed are the reverse sides of the listed pages and contain no changes.

<i>Page</i>	<i>Location</i>	<i>Change</i>
36	Footnote 1	Revised
54	4A-1, 3.2(a)	Revised

SPECIAL NOTE

The Interpretations to ANSI/ASME NQA-1-1986 Edition are included in this Addenda as a separate section for the user's convenience. This section, however, is not part of the Addenda or of the Standard itself.

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maintaining, reworking, repairing, replacing, or modifying an item;

(c) those which would be of significant value in determining the cause of an accident or malfunction of an item;

(d) those which provide required baseline data for in-service inspections.

Lifetime records are required to be maintained by or for the plant owner for the life of the particular item while it is installed in the plant or stored for future use.

2.7.2 Nonpermanent Records. Nonpermanent records are those required to show evidence that an activity was performed in accordance with the applicable requirements but need not be retained for the life of the item because they do not meet the criteria for lifetime records.

2.8 Retention of Records

Records shall be retained in accordance with the above classifications. The retention period for nonpermanent records shall be established in writing.

2.9 Corrected Information in Records

Records may be corrected in accordance with procedures which provide for appropriate review or approval by the originating organization. The correction shall include the date and the identification of the person authorized to issue such correction.

3 RECEIPT

3.1 Responsibility

The individual or organization responsible for receiving records shall provide protection from damage or loss during the time that the records are in their possession.

3.2 Receipt Control

Each organization responsible for the receipt of records shall designate a person or organization responsible for receiving the records. The designee shall be responsible for organizing and implementing a system of receipt control of records for permanent and temporary storage.

As a minimum, a receipt control system shall include the following:

(a) a method for designating the required records;

(b) a method for identifying records received;

(c) procedures for receipt and inspection of incoming records;

(d) a method for submittal of completed records to the storage facility without unnecessary delay.

3.3 Status

Each receipt control system shall be structured to permit a current and accurate assessment of the status of records during the receiving process.

4 STORAGE, PRESERVATION, AND SAFEKEEPING

4.1 Storage

The records shall be stored in predetermined location(s) that meet the requirements of applicable standards, codes, and regulatory agencies.

Prior to storage of records, a written storage procedure shall be prepared and responsibility assigned for enforcing the requirements of that procedure. This procedure shall include, as a minimum, (a) through (g) below:

(a) a description of the storage facility;

(b) the filing system to be used;

(c) a method for verifying that the records received are in agreement with the transmittal document and that the records are legible;

(d) a method of verifying that the records are those designated (see para. 3.2 above);

(e) the rules governing access to and control of the files;

(f) a method for maintaining control of and accountability for records removed from the storage facility;

(g) a method for filing supplemental information (see para. 2.9 above) and disposing of superseded records.

4.2 Preservation

Records shall be stored in a manner approved by the organization or organizations responsible for storage. In order to preclude deterioration of the records, the requirements of (a) through (c) below shall apply.

(a) Provisions shall be made in the storage arrangement to prevent damage from moisture, temperature, and pressure.

(b) Records shall be firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers.

(c) Provisions shall be made for special processed records (such as radiographs, photographs, negatives, microform, and magnetic media) to prevent damage from excessive light, stacking, electromagnetic fields, temperature, and humidity.

4.3 Safekeeping

Measures shall be established to preclude the entry of unauthorized personnel into the storage area. These measures shall guard against larceny and vandalism.

Measures shall be taken to provide for replacement, restoration, or substitution of lost or damaged records.

4.4 Facility

Records shall be stored in facilities constructed and maintained in a manner which minimizes the risk of damage or destruction from the following:

- (a) natural disasters such as winds, floods, or fires;
- (b) environmental conditions such as high and low temperatures and humidity;
- (c) infestation of insects, mold, or rodents.

There are two satisfactory methods of providing storage facilities, single or dual.

4.4.1 Single Facility. Design and construction of a single record storage facility shall meet the criteria of (a) through (i) below:

- (a) reinforced concrete, concrete block, masonry, or equal construction;
- (b) floor and roof with drainage control. If a floor drain is provided, a check valve (or equal) shall be included.
- (c) doors, structure and frames, and hardware shall be designed to comply with the requirements of a minimum 2 hr fire rating;
- (d) sealant applied over walls as a moisture or condensation barrier;
- (e) surface sealant on floor providing a hard wear surface to minimize concrete dusting;
- (f) foundation sealant and provisions for drainage;
- (g) forced air circulation with filter system;
- (h) fire protection system;
- (i) only those penetrations used exclusively for fire protection, communication, lighting, or temperature/humidity control are allowed; all such

penetrations shall be sealed or dampened to comply with the minimum 2 hr fire protection rating.

The construction details shall be reviewed for adequacy of protection of contents by a person who is competent in the technical field of fire protection and fire extinguishing.

If the facility is located within a building or structure, the environment and construction of that building can provide a portion or all of these criteria.

4.4.2 Alternate Single Facilities. The following are acceptable alternatives to the criteria of para. 4.4.1 above for a single facility:

- (a) 2 hr fire rated vault meeting NFPA 232-1975;¹
- (b) 2 hr fire rated Class B file containers meeting the requirements of NFPA 232-1975;¹ or
- (c) 2 hr fire rated file room meeting the requirements of NFPA 232-1975¹ with the following additional provisions:

- (1) early warning fire detection and automatic fire suppression capability with electronic supervision at a constantly attended central station;
- (2) records storage in fully enclosed metal cabinets;
- (3) adequate access and aisle ways;
- (4) prohibition in the room of work not directly associated with record storage or retrieval;
- (5) prohibition in the room of smoking, eating, or drinking;
- (6) 2 hr fire rated dampers or doors in all boundary penetrations.

4.4.3 Dual Facilities. If storage at dual facilities for each record is provided, the facilities shall be at locations sufficiently remote from each other to eliminate the chance of exposure to a simultaneous hazard. Each facility is not required to satisfy the requirements of either para. 4.4.1 or para. 4.4.2 above, but shall meet the other requirements of this Standard.

5 RETRIEVAL

Storage systems shall provide for retrieval of information in accordance with planned retrieval times based upon the record type.

A list shall be maintained designating those personnel who shall have access to the files.

¹NFPA 232-1975 is contained in Volume 9 of the National Fire Codes published by the National Fire Protection Association, Batterymarch Park, MA 02269.

APPENDIX 4A-1 NONMANDATORY GUIDANCE ON PROCUREMENT DOCUMENT CONTROL

1 GENERAL

This Appendix provides nonmandatory guidance on controlling quality assurance requirements in procurement documents as specified in Basic Requirement 4 and Supplement 4S-1.

2 PROCUREMENT DOCUMENT REVIEW

The review of procurement documents should be performed as early in the document preparation as practical. Technical and quality assurance reviews should normally be performed on the procurement documents prior to issuance for bid.

3 TYPICAL SCOPE OF PROCUREMENT EFFORT

The complexity of a nuclear facility dictates the need for a multitude of tasks that should be performed during various phases of design, construction, testing, and operations. One of the major tasks is the procurement of items and services. Each major phase involves a procurement effort that should be responsive to the special needs of that phase and that should provide items and services which meet code, regulatory, and special requirements. Examples of the items and services procured during these phases are given in paras. 3.1 and 3.2 below.

3.1 Design, Construction, and Testing Phases

- (a) Design and engineering services;
- (b) Site investigations, such as those required to determine the engineering requirements for the structure (i.e., soil investigation, environmental studies, both field work and laboratory effort);
- (c) Long-lead items such as the nuclear steam supply, process equipment, including major equipment fabrication and test, and high level waste storage tanks;

- (d) Construction of the main structure of the facility, including structural steel erection and concrete production and placement;

- (e) Specific site erection and installation tasks, such as piping, mechanical and electrical equipment;

- (f) Services for nondestructive examination and required laboratory tests;

- (g) Hardware, such as valves, piping, tanks, and miscellaneous hardware;

- (h) Software, such as development of facility operating procedures, technical manuals, and computer codes;

- (i) Services of various consultants to assist in setting up management systems (i.e., quality assurance program and operator training);

- (j) Pre-operational and start-up tests;

- (k) Baseline inspection equipment or services.

3.2 Operational Phase

- (a) Fuel, equipment, and services for power plant fueling operations; special fuel grapples and cask yokes at reprocessing plants, fuel components, and subassemblies at fuel fabrication plants; chemicals used in fuel processing and reprocessing cycles; special packaging for nuclear materials, radioactive products, and radioactive by-products;

- (b) Inservice inspection equipment or services;

- (c) Items and services for facility maintenance, modifications, or changes;

- (d) Special services such as environmental monitoring, radioactive waste disposal, and facility decontamination.

The examples given in para. 3.1 and (a) through (d) above are not meant to be all inclusive but only indicative of the wide variety of procurements for the above phases. Similarly, it should be realized that the phases and types of procurements listed above are not distinct in scope and timing and that there may be considerable overlapping depending upon the needs of a particular situation.

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ANSI/ASME NQA-1-1986 EDITION
QUALITY ASSURANCE PROGRAM
REQUIREMENTS FOR NUCLEAR FACILITIES

INTERPRETATIONS

Replies to Technical Inquiries
October 1, 1985, through September 30, 1986

FOREWORD

This publication includes all of the written replies issued between the indicated dates by the Secretarial Staff, speaking for the ASME Committee on Nuclear Quality Assurance, to inquiries concerning interpretations of technical aspects of ANSI/ASME NQA-1 Quality Assurance Program Requirements for Nuclear Facilities.

These replies are taken verbatim from the original letters except for a few typographical corrections and some minor editorial corrections made for the purpose of improved clarity. In some instances, a review of the interpretation revealed a need for corrections of a technical nature; in these cases a corrected interpretation follows immediately after the original reply.

These interpretations were prepared in accordance with the accredited ASME procedures. ASME procedures provide for reconsideration of these interpretations when or if additional information is available which the inquirer believes might affect the interpretation. Further, persons aggrieved by this interpretation may appeal to the cognizant ASME committee or subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

These replies apply to the latest Edition and Addenda at the time of the inquiry or the Edition and Addenda stated in the reply. Subsequent revisions to the rules may have superseded the reply.

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File: QA85-004

Subject: ANSI/ASME NQA-1-1979 and Subsequent Editions and Addenda Through ANSI/ASME NQA-1c-1985: Basic Requirement 6 and Supplement 6S-1, Document Control

Date Issued: February 27, 1986

Question: Does ANSI/ASME NQA-1, Basic Requirement 6 and Supplement 6S-1, control documents other than those which prescribe activities affecting quality, such as instructions, procedures, and drawings?

Reply: No. There is a basic problem regarding the application of the term document. There is a tendency among many to view Basic Requirement 6 as requiring the application of the same types of controls to pieces of paper or other media on which results are recorded (such as test reports and weld histories) as are applied to documents which provide instructions for performing work (such as instructions, procedures, and drawings).

The only documents requiring controls in Basic Requirement 6 and Supplement 6S-1 are those that specify quality requirements or prescribe activities affecting quality, such as:

- Safety Analysis Reports (SAR)
- Licensing Requirements (Technical Specifications)
- Instructions, e.g., manufacturing, QA/QC Manuals, and others
- Procedures
- Drawings
- Specifications

The second component of this problem is a tendency to confuse the requirements for document control with the more rigorous requirements specified for Quality Assurance Records in Supplement 17S-1.

Other types of documents are required to be controlled only as specified in other sections of NQA-1; the controls of Basic Requirement 6 and Supplement 6S-1 do not apply. Documents in this category are those that report, certify, or provide results of activities affecting quality, such as:

- Weld Histories
- Inspection Reports
- Process Control Data (required by codes and standards)
- Test and Examination Results
- Data Sheets
- Personnel Qualifications and Certifications (required by codes and standards)

File: QA85-007

Subject: ANSI/ASME NQA-1-1983 Edition: Supplement 17S-1, Quality Assurance Records

Date Issued: October 16, 1985

Question (1): Is there a recommended frequency such as monthly, quarterly, etc., that copies of completed records are to be forwarded to the dual storage facility?

Reply (1): It is the intent of ANSI/ASME NQA-1, Supplement 17S-1, to require timely submittal of a record. No specific frequency is required by the Standard. However, internal procedures shall designate the time period for records to be submitted to the storage facility.

Question (2): Do records forwarded to the dual storage facility have to be maintained to the same level of control as in the primary storage facility? That is, do they have to be indexed, access controlled, and equally retrievable?

Reply (2): Yes.

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File: QA85-009

Subject: ANSI N45.2-1971, ANSI N45.2.11-1974, and ANSI/ASME NQA-1-1979 and later Editions and Addenda Through the 1986 Edition: Supplement 3S-1, Para. 4, Verification, Checking, and Design Review

Date Issued: September 30, 1986

Question (1): Is checking recognized as one of the acceptable methods for verifying the adequacy of design output documents in ANSI N45.2.11 or ANSI/ASME NQA-1?

Reply (1): The purpose served by checking varies widely depending on how the process is defined in procedures by the design organization. If the checking process complies with all the design verification requirements of ANSI/ASME NQA-1, Supplement 3S-1, para. 4 or ANSI N45.2.11, para. 6, the process qualifies as design verification.

Question (2): Would you define the differences between verification, checking, and design review as used in ANSI N45.2, para. 4.3 or ANSI N45.2.11?

Reply (2): As used in ANSI N45.2, para. 4.3, "verification" and "checking" are intended to be synonymous terms which represent the same requirement. As indicated, this requirement may be met by the performance of such activities as design reviews, alternate or simplified calculations, and/or performance of a suitable testing program.

As used in ANSI N45.2.11, "design review" is a design verification effort performed by a competent individual or individuals, other than those who performed the original design, to provide assurance that the final design is correct and satisfactory. The following are addressed, as applicable.

- (a) Were the design inputs correctly selected?
- (b) Are assumptions necessary to perform the design activity adequately described and reasonable? Where necessary, are the assumptions identified for subsequent reverifications when the detailed design activities are completed?
- (c) Was an appropriate design method used?
- (d) Were the design inputs correctly incorporated into the design?
- (e) Is the output reasonable compared to the inputs?
- (f) Are the necessary design input and verification requirements for interfacing organizations specified in the design documents?

Question (3): Does the normal "design checking" process as used in the architect/engineer (A/E) world serve as a self-sufficient means of design verification?

Reply (3): If the activity termed the "normal checking process" accomplished the above [the second paragraph of Reply (2)], it qualifies as a design review; and, therefore, it is an adequate means for design verification. To the extent that the process does not accomplish the above [the second paragraph of Reply (2)], it must either be supplemented by appropriate actions so that the aggregate process does accomplish the above, or the design verification must be accomplished by other appropriate means, such as alternate or simplified calculations and/or performance of a suitable testing program.

File: QA85-010
Subject: ANSI/ASME NQA-1-1979: Supplement 3S-1, Para. 3.1, Design Analyses
Date Issued: October 16, 1985

Question (1): Is it a requirement of ANSI/ASME NQA-1, Supplement 3S-1, that design analyses be documented in the exact sequence as outlined in paras. 3.1(a) through (f)?

Reply (1): No.

Question (2): Must each of the referenced articles in Supplement 3S-1, paras. 3.1(a) through (f), be precisely identified by using headings such as (1) "Objectives," (2) "Design Inputs," (3) "Assumptions," etc., in the design analyses documentation?

Reply (2): No.

Question (3): Can the engineer who prepares the design document describe the assumptions he used throughout the different portions of the design document without using the heading "Assumptions," provided anyone who is qualified to review the document can easily identify what assumptions have been utilized?

Reply (3): Yes.

Question (4): In accordance with Supplement 3S-1, para. 3.1, when documenting a design analysis where no assumptions have been made, does this have to be stated in the design document?

Reply (4): No.

File: QA85-012
Subject: ANSI/ASME NQA-1-1983 Edition, Basic Requirement 2
Date Issued: November 21, 1985

Question (1): What is the intent of ANSI/ASME NQA-1, Basic Requirement 2, which states, "Management of those Organizations implementing the Quality Assurance Program, or portions thereof, shall regularly assess the adequacy of that part of the program for which they are responsible and shall assure its effective implementation?"

Reply (1): The intent of this requirement is to regularly assess the adequacy and effectiveness of the Quality Assurance Program.

Question (2): To what level of line organization management does it extend?

Reply (2): It extends to the level of management consistent with the scope of the assessment and should be specified in your procedures.

Question (3): What is required of management to attest that this assessment has been accomplished?

Reply (3): Management is required to provide documentary evidence that the assessment took place and that resulting action items were documented.

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File: QA85-013

Subject: ANSI N45.2.9-1974 and ANSI/ASME N45.2.9-1979, Para. 2.2; ANSI/ASME NQA-1-1979 and Subsequent Editions and Addenda Through ANSI/ASME NQA-1b-1984, Supplement 17S-1, Para. 2.3: Quality Assurance Records — Microfilmed Copies

Date Issued: October 16, 1985

Question (1): Does ANSI (ANSI/ASME) N45.2.9 allow the retention of microfilmed copies of records or are the originals of the records required to be maintained?

Reply (1): Records may be originals or reproduced copies, e.g., microfilm.

Question (2): Does ANSI/ASME NQA-1, Supplement 17S-1, allow the retention of microfilmed copies of records or are the originals of the records required to be maintained?

Reply (2): Records may be originals or reproduced copies, e.g., microfilm.

File: QA85-014

Subject: ANSI/ASME N45.2-1977, Section 15, and ANSI/ASME NQA-1-1983 Edition With the 1a-1983 and 1b-1984 Addenda: Basic Requirement 14, Inspection, Test, and Operating Status

Date Issued: November 21, 1985

Question: Is a supplier who is committed to meet ANSI/ASME N45.2, Section 15, required to control quality assurance stamps which identify the approver by signature and title?

Reply: Yes. ANSI/ASME N45.2, Section 15, states, "... measures shall include procedures for control of status indicators, including the authority for application and removal of tags, markings, labels, and stamps."

If you are using ANSI/ASME NQA-1, Basic Requirement 14 states, "The authority for application and removal of tags, markings, labels, and stamps shall be specified."

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File: QA85-015

Subject: ANSI/ASME NQA-1-1983 Edition: Supplement 4S-1, Para. 2.7, Spare and Replacement Parts

Date Issued: March 10, 1986

Question: When spare or replacement parts are ordered, does ANSI/ASME NQA-1 require that spare or replacement parts be subject to specifications and codes equivalent to those specified for the original equipment or those specified by a properly reviewed and approved revision? In those cases when the requirements of the original item cannot be determined, does ANSI/ASME NQA-1 require that an engineering evaluation be conducted by qualified individuals to establish the requirements and controls?

Reply: It is the intent of ANSI/ASME NQA-1 that spare or replacement parts be subject either to specifications and codes equivalent to those specified for the original equipment or to those specified by properly reviewed and approved revisions to the original specifications and codes. In those cases where the requirements for the original item cannot be determined, it is the intent of ANSI/ASME NQA-1 that appropriate requirements be established by the responsible design organization.

ANSI/ASME NQA-1 specifies this process as follows.

Supplement 4S-1 addresses procurement of spare and replacement parts in para. 2.7, technical requirements in para. 2.2, and quality assurance program requirements in para. 2.3.

Supplement 3S-1 augments Supplement 4S-1 by addressing the design process in Section 3, design verification in para. 4.1, and change control in Section 5.

Requirements for commercial grade items are included in Section 3 of Supplement 3S-1 and Section 10 of Supplement 7S-1.

File: QA85-016

Subject: ANSI/ASME NQA-1-1983 Edition: Basic Requirement 2, Quality Assurance Program

Date Issued: February 27, 1986

Question: In ANSI/ASME NQA-1, Basic Requirement 2, does the phrase "Management of those organizations implementing the quality assurance program . . ." mean outside the "original" company (i.e., contractors, subcontractors) or does it pertain to internal functions?

Reply: The phrase applies to both "internal" and "outside" functions. As stated elsewhere in Basic Requirement 2, "The program shall provide control over activities consistent with their importance."

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File: QA85-017

Subject: ANSI/ASME NQA-1-1983 Edition With All Addenda (1a-1983, 1b-1984, 1c-1985): Supplement 17S-1, Para. 2.3 and Para. 4.1, Quality Assurance Records

Date Issued: February 27, 1986

Question: In accordance with ANSI/ASME NQA-1, Supplement 17S-1, what are the requirements for a quality assurance record for the interval that exists from the time a quality assurance record is considered valid (para. 2.3) until the quality assurance record reaches storage (para. 4.1)?

Reply: ANSI/ASME NQA-1, Supplement 17S-1, para. 3.2(d) states, in essence, that the system of receipt control shall include a method for submittal of completed records to the storage facility without unnecessary delay. Procedures should specify a time frame for unnecessary delay and include what delays are appropriate, exercising reasonable prudence, for submitting records to the storage facility, or removing records for further processing at the particular locations.

File: QA85-018

Subject: ANSI/ASME NQA-1-1983 Edition: Supplement 2S-3, Para. 2.1, Qualification of Auditors

Date Issued: February 27, 1986

Question (1): ANSI/ASME NQA-1-1983 Edition, Supplement 2S-3, para. 2.1, states, "Personnel selected for quality assurance auditing assignments shall have experience or training commensurate with the scope, complexity, or special nature of the activities to be audited. Auditors shall have, or be given, appropriate training or orientation to develop their competence for performing required audits." Does this excerpt mean that audit personnel must have actual experience or training commensurate with (i.e., equal in measure to) the scope, complexity, or special nature of the activity to be audited?

Reply (1): Yes. This provision applies to any audit team member depending on the special nature of the specific audit as defined in the Audit Plan. The Lead Auditor (Supplement 2S-3, para. 5.1) is responsible for assuring the collective competence of the audit team to perform the audit, which includes his competence as well as the competence of those selected as team members. An example of this nature would be reexamination of selected design calculations which have been accepted. The individual performing the technical audit of the design calculation must have actual experience or training in that technical function. An individual auditing adherence to the programmatic requirements related to design control would not need training or experience in making design calculations.

Question (2): Must documentation exist describing said experience or training?

Reply (2): Yes.

File: QA86-002

Subject: ANSI/ASME NQA-1-1983 Edition: Basic Requirement 2, Implementation of the Quality Assurance Program

Date Issued: July 15, 1986

Question: ANSI/ASME NQA-1 states, "Management of those organizations implementing the quality assurance program, or portions thereof, shall regularly assess the adequacy of that part of the program for which they are responsible and shall assure its effective implementation." Does this require formal internal self-audits, with objective evidence of accomplishment, or are variations which meet the assessment objective adequate?

Reply: Formal internal self-audits or multiple department self-assessments are not the only methods of satisfying this requirement. Assessment may be performed by management using any resources and information at its disposal including, for example, results from meetings and verification activities.

The methods used to meet the requirement for management of those organizations implementing the quality assurance program, or portions thereof, to regularly assess the adequacy of that part of the program for which they are responsible and to assure its effective implementation must be formalized, i.e., documented, and objective evidence of accomplishing the requirements is necessary.

File: QA86-003

Subject: ANSI/ASME N45.2.6-1979, Para. 3.5. and ANSI/ASME NQA-1-1983 Edition With All Addenda (1a-1983, 1b-1984, 1c-1985): Appendix 2A-1, Section 3, Qualifications of Inspection and Test Personnel — Experience

Date Issued: February 27, 1986

Question (1): ANSI/ASME N45.2.6, paras. 3.5.1, 3.5.2, and 3.5.3, state recommended education and experience for each level of qualification. How exact should the recommended time interval for the experience be interpreted? Should we take into account the number of hours worked per week for 26 weeks, if they took a vacation day, or if they worked on activities other than inspection, examination, and testing?

Reply (1): The type of precision delineated in this question was not the intent of the framers of this guidance. The user of the Standard must establish, as an element of his qualification program, the specific or generic experience to quality.

Question (2): ANSI/ASME NQA-1, Appendix 2A-1, paras. 3.1, 3.2, and 3.3, provide guidance on the education and experience for each level of qualification. How exact should the recommended time interval for the experience be interpreted? Should we take into account the number of hours worked per week for 26 weeks, if they took a vacation day, or if they worked on activities other than inspection, examination, and testing?

Reply (2): The type of precision delineated in this question was not the intent of the framers of this guidance. The user of the Standard must establish, as an element of his qualification program, the specific or generic experience to quality.

Item: QA86-004

Subject: ANSI/ASME NQA-1-1983 Edition With the 1a-1983 and 1b-1984 Addenda: Supplement 2S-2, Para. 2.1, Qualification of Nondestructive Examination Personnel

Date Issued: February 26, 1986

Question: Do the requirements of ANSI/ASME NQA-1-1983 Edition with the 1a-1983 and 1b-1984 Addenda, Supplement 2S-2, para. 2.1, that SNT-TC-1A, June 1980 Edition, and its applicable supplements, apply as requirements to NDE personnel covered by Supplement 2S-2, make the provisions of SNT-TC-1A (1980 Edition) mandatory rather than guidance; i.e., "shall" is inserted in place of the permissive "should" throughout SNT-TC-1A-1980?

Reply: Yes.

File: QA86-006

Subject: ANSI/ASME N45.2.12-1977, Para. 5.2, ANSI N45.2.9-1974, Appendix A, ANSI/ASME NQA-1-1983 Edition With All Addenda (1a-1983, 1b-1984, 1c-1985): Audit Records

Date Issued: July 15, 1986

Question: Is it the intent of ANSI/ASME N45.2.12, para. 5.2, to require that all the items listed as audit records be controlled as quality assurance records under ANSI N45.2.9, even though only the audit report is listed in ANSI N45.2.9, Appendix A?

Reply: Yes. The intent of ANSI/ASME N45.2.12 is to require that those records listed in para. 5.2 be controlled as quality assurance records under ANSI N45.2.9. Appendix A of ANSI N45.2.9 is meant to be a typical listing of records only and is not necessarily all inclusive of quality assurance records required to be maintained.

It should be noted that this is commensurate with ANSI/ASME NQA-1, Supplement 18S-1, Section 8 and Supplement 17S-1, para. 2.7.2, which require that audit plans, audit reports, written replies, and the record of completion of corrective action be maintained as nonpermanent quality assurance records.

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File: QA86-007
Subject: ANSI N45.2.9-1974, Para. 5.5 and ANSI/ASME NQA-1-1983 Edition With All Addenda (1a-1983, 1b-1984, 1c-1985), and Supplement 17S-1, Section 4: Location and Safekeeping of Quality Assurance Records

Date Issued: July 15, 1986

Question (1): Does ANSI N45.2.9, para. 5.5, require that an "alarmed detection system" be present in record storage facilities?

Reply (1): No. Procedures should specify what is necessary to preclude the entry of unauthorized personnel and guard against larceny and vandalism.

Question (2): Does ANSI N45.2.9, para. 5.2, require that the record storage facility be within the fenced-in and patrolled "protected area" of the nuclear power plant?

Reply (2): No. Procedures should specify what is necessary to preclude the entry of unauthorized personnel and guard against larceny and vandalism.

Should you be using ANSI/ASME NQA-1, please refer to Supplement 17S-1, Section 4.

File: QA86-008
Subject: ANSI N45.2.9-1974 and ANSI/ASME NQA-1-1983 Edition With All Addenda (1a-1983, 1b-1984, 1c-1985): Supplements S-1 and 17S-1, Quality Assurance Records
Date Issued: July 15, 1986

Question: Are communications such as correspondence, interoffice memoranda, formalized telephone notes, telexes, or formalized conference/meeting minutes classified as quality assurance records under the requirements of ANSI N45.2.9?

Reply: Yes, if this form of documentation (communications) is the only record which furnishes documentary evidence of the quality of items and of activities affecting quality, then communications in the form of correspondence, interoffice memoranda, formalized telephone notes, telexes, or formalized conference notes/meeting minutes shall be classified as quality assurance records in accordance with ANSI N45.2.9.

Should you be using ANSI/ASME NQA-1, please refer to Supplement S-1, definition of Quality Assurance Record.

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File: QA86-009

Subject: ANSI/ASME N45.2.23-1978, Para. 2.3.5 and Para. 4.2, and ANSI/ASME NQA-1-1983 Edition With All Addenda (1a-1983, 1b-1984, 1c-1985): Supplement 2S-3, Qualification Examination for a Lead Auditor

Date Issued: September 8, 1986

Question (1): When certifying a Lead Auditor in accordance with ANSI/ASME N45.2.23, is it permissible to obtain a letter (objective evidence) from the previous employer which states that the individual passed an examination in accordance with para. 2.3.5? The letter would state the type(s) and contents of the examination(s). This would be used in lieu of giving an additional examination or obtaining a copy of the actual examination given to the individual.

Reply (1): Yes, a letter from a previous employer or any other independent certifying agency is acceptable objective evidence that the individual passed an examination which evaluated his comprehension of and ability to apply the required knowledge. Note, however, that it is the employer's responsibility to assure that the examination adequately assesses the body of knowledge identified in para. 2.3.3.

Question (2): Is the practical test requirement of ANSI/ASME N45.2.23, para. 2.3.5 satisfactorily met by having the individual perform during on-the-job training as the acting audit team leader? The actual audit team leader then evaluates the individual's performance and informs management whether or not the individual has adequate knowledge to perform as an audit team leader.

Reply (2): Yes, on-the-job training as the acting team leader that is evaluated by another team leader is an acceptable form of a practical test if the qualified team leader is an active participant in the audit.

If you are using ANSI/ASME NQA-1, see Supplement 2S-3, paras. 3.2, 3.4, and 5.2.

File: QA86-012

Subject: ANSI/ASME N45.2-1977, ANSI N45.2.11-1974, and ANSI/ASME NQA-1-1979 and later Editions and Addenda Through the 1986 Edition: Supplement 3S-1, Para. 3.1 and Section 4, Design Verification

Date Issued: July 15, 1986

Question (1): What is the intent of ANSI/ASME NQA-1, Supplement 3S-1, para. 3.1 and Section 4, regarding review, approval, and verification of design analyses and calculations?

Reply (1): ANSI/ASME NQA-1, Supplement 3S-1, para. 3.1, requires the documentation of design analyses and calculations, including their review and approval. Section 4 requires that the design be independently verified by design review, qualification testing, alternate calculations, or other methods to confirm the adequacy of the design. It is the responsibility of the design organization to define the requirements for review and approval of individual design analyses and calculation, and the relationship of these reviews in the design process to required design verifications. If the review and approval of individual design analyses and calculations satisfy the requirements of Section 4, an additional verification of those design analyses and calculations is not required. It is the intent of ANSI/ASME NQA-1 that the technical adequacy of design analyses and calculations be verified. This verification can be accomplished on an individual basis or as a part of a broader design verification activity.

Question (2): What is the intent of ANSI/ASME NQA-1, Supplement 3S-1, paras. 3.1 and 4.2.2, regarding the review and approval of alternate calculations performed for design verification purposes?

Reply (2): ANSI/ASME NQA-1 does not require an additional review and approval of alternate calculations performed for design verification purposes.

Question (3): Does ANSI/ASME NQA-1 or its predecessor standards require that each design analysis and calculation be reviewed for accuracy?

Reply (3): Neither ANSI/ASME NQA-1 nor its predecessors, ANSI/ASME N45.2 or ANSI N45.2.11, explicitly requires (or required) that each design analysis and calculation be reviewed for accuracy. However, it is the intent of ANSI/ASME NQA-1 and its predecessors that the technical adequacy of design analyses and calculations be verified. This verification can be accomplished on an individual basis or as part of a broader design verification activity. As stated above, it is the responsibility of the design organization to define the requirements for review and approval of individual design analyses and calculations, and the relationship of these reviews to required design verifications.

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