

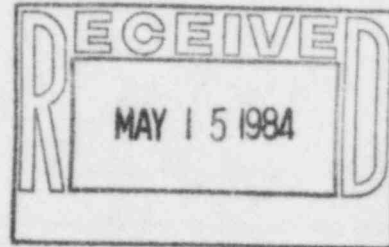


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May 4, 1984

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Mr. Richard P. Denise, Director  
Division of Resident Reactor Projects  
and Engineering Programs  
U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, TX 76011



SUBJECT: Arkansas Nuclear One - Units 1 & 2  
Docket Nos. 50-313 and 50-368  
License Nos. DPR-51 and NPF-6  
AP&L Quality Assurance Manual - Operations

Gentlemen:

Attached is AP&L's Quality Assurance Manual, Revision 6 which is submitted for your final review and acceptance. This manual incorporates comments made by the NRC and was discussed with Mr. R. Brickley of your staff. The specific NRC comments and our responses are also attached.

Very truly yours,

John R. Marshall  
Manager, Licensing

JRM:MCS:ac

Attachment

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NRC COMMENTS  
AND AP&L RESPONSES

- COMMENT: Reword the last paragraph on page B-1 to note all exceptions in Table 1 of the QA Manual.
- RESPONSE: The fourth paragraph on page B-1 of the Introduction has been reworded as requested.
- COMMENT: Add regulatory guide 1.144, Rev. 1, on page B-3.
- RESPONSE: Reference to regulatory guide 1.144, Rev. 1, has been added on page B-3 of the Introduction below regulatory guide 1.123, Rev. 1.
- COMMENT: Reword the paragraph on page B-3 to note all exceptions in Table 1 of the QA Manual.
- RESPONSE: The paragraph immediately following regulatory guide 1.146 on page B-3 of the Introduction has been reworded as requested.
- COMMENT: What responsibility does QA have in the review and approval of departmental procedures?
- RESPONSE: Table 3, "Quality Program Policies, Procedures and Instruction Manuals List", identifies the individual or group responsible for the review of procedures as it relates to quality aspects. Paragraph 2.5 of Section 2 of this manual addresses the involvement of the QA Manager in the review and approval of the Quality Program. Paragraph 5.3 of Section 5 of this manual addresses the involvement of the QA and QC groups in the review and approval of implementing procedures. The paragraph under part 6, "Departmental Plant Administrative Procedures", of Table 3, has been expanded to identify involvement of the responsible department heads and the Plant Safety Committee in the review of procedures.
- COMMENT: Need to address how disputes involving quality are to be settled, which cannot be settled interdepartmentally.
- RESPONSE: A sentence at the end of the fourth paragraph on page A-1 of the AP&L Policy Statement has been added which address this comment.
- COMMENT: Need to address qualification requirements for the QA Manager which meet the experience and education requirements of ANSI ANS 3.1-1978 (SRP 17.1.1, #1C.2).
- RESPONSE: The qualification requirements for the QA Manager have been added to paragraph 1.4.1.1 on page 1.3 of Section 1 to this manual. These qualification requirements were found to be compatible with those identified in Section 4.4.5 of ANSI ANS 3.1-1978.

COMMENT: In Figure F-3, need to add a dash line from the Nuclear Quality Control Manager to the Quality Assurance Manager. Also, verify against Technical Specifications that a dashed line means "line of communication".

RESPONSE: A "dash" line has been added from the Manager, Nuclear Quality Control to the Quality Assurance Manager and to the Construction Quality Control Supervisor. These dash lines represent a line of communication between the various quality groups and between the Quality Assurance Manager and the Energy Supply Senior Vice President. The dashed lines on the the organizational charts within the Technical Specifications were verified to mean a line of communication.

COMMENT: Need to define the relationship between Quality Assurance and the two Quality Control groups.

RESPONSE: A paragraph has been added on page 1-22 of Section 1 to this manual which defines the relationship between Quality Assurance and the two Quality Control groups.

COMMENT: Need to add the requirements of SRP 17.1.1, #1B3, to the QC groups identified in paragraph 1.4.2.3.1 and 1.5.6 of the QA Manual.

RESPONSE: The requirements found in the Standard Review Plan, Rev. 1, Part 17.1.1, #1B3 have been added in paragraphs 1.4.1.1, (page 1-3) 1.4.2.3 (3) (page 1-11), and 1.5.6 (page 1-19) of Section 1 to this manual.

COMMENT: Need to address computer code programs. (See SRP 17.1.2, #2A1.C)

RESPONSE: A definition of the term "computer code" has been added on page C-3 of the Terms and Definition Section of this manual to provide a description of how the QA program will be applied.

COMMENT: Need to address training documentation requirements in paragraph 2.6 of manual. (See SRP 17.1.2, #2D.C)

RESPONSE: The formal training documentation requirement noted in the Standard Review Plan has been added as paragraph 2.6.6 (page 2-6) in Section 2 of this manual.

COMMENT: Need to address the identification of fire protection as a system covered by the QA Program in the QAM. (If fire protection is addressed in the FSAR, a reference to this fact is only required) See SRP 17.1.2, #2A1.e.

RESPONSE: A paragraph (paragraph 2.2.2) on fire protection has been added on page 2-1 of this manual, which notes that the fire protection program is covered in the FSAR for each nuclear unit and is audited by Quality Assurance. Existing paragraph 2.2.2 has been renumbered 2.2.3.

COMMENT: Need to address the certification and control of computer codes.  
(See SRP 17.1.3, #3E4)

RESPONSE: A sentence has been added to the end of paragraph 3.2.1 on page 3-1 of Section 3 to this manual which addresses the certification and control of computer codes.

COMMENT: Section 9 of ANSI N45.2.11-1974 address corrective action due to a design deficiency. Need to address this in either Section 3 or 16 of the QAM.

RESPONSE: Corrective actions due to a design deficiency has been addressed by adding paragraph 3.6 in Section 3 of this manual.

COMMENT: Within paragraph 3.4.2 of manual, need to address all requirements of SRP 17.1.3, #3E2.a.

RESPONSE: The three requirements to be met when the originator's supervisor performs the verification have been added to paragraph 3.4.2 on page 3-3 of Section 3 to this manual.

COMMENT: Within paragraph 3.4.3 of manual, need to address all requirements of SRP 17.1.3, #3E3.

RESPONSE: Of the three requirements listed under #3E3 of the Standard Review Plan, requirements b. and c. have been added to paragraph 3.4.3 on page 3-3 of Section 3 to this manual. AP&L contacted Mr. Brickley on April 13, 1984, to discuss requirement a. since it appears to contradict the wording in 3E3. Mr. Brickley concurred that the need to specifically address requirement a. of 3E3 would not be necessary.

COMMENT: SRP 17.2.3, #2, requirements is not adequately addressed as it pertains to informing subsequent shift operators. (May go in Section 3 or Section 14.)

RESPONSE: Paragraph 14.4.2 on page 14-5 of Section 14 to this manual has been added to address how personnel on succeeding shifts are made aware of design changes/modifications which may affect the performance of their duties.

COMMENT: At the end of paragraph 3.4.1 of manual, need to add the last sentence from SRP 17.1.3, #3E2.b, as it pertains to an operating plant.

RESPONSE: A sentence has been added to the end of paragraph 3.4.1 on page 3-3 of Section 3 to this manual which addresses this comment as it pertains to an operating plant.

COMMENT: Within paragraph 6.1 of manual, reword third line to read, "documents, such as calculations, computer codes, analyses, Topical Report, FSAR, instructions, procedures, specifications, manuals and". (See SRP 17.1.6, #6A1 for input.)



RESPONSE: Paragraph 6.1 on page 6-1 of Section 6 to this manual has been reworded to include those controlled documents identified in the Standard Review Plan, part 17.1.6, #6A1.

COMMENT: Within paragraph 6.2.1 of manual, need to make a general statement which satisfies the last sentence of SRP 17.1.6, #6A2.

RESPONSE: A new paragraph 6.2.2 has been added on page 6-1 of section 6 to this manual to identify the quality group or other individual(s) who review controlled documents with regards to QA-related aspects. Also addressed in Table 3 of this manual as it relates to the review for quality aspects.

COMMENT: Need to address the corrective action commitments made to the NRC on March 9, 1984, (including the function and responsibilities of the QA Subcommittee under the MSU Nuclear Oversight Committee.)

RESPONSE: The corrective action commitments pertaining to source surveillance, source audit, independent testing of received material and the Qualified Vendors List have been addressed in Section 7 of this manual. Paragraphs 7.1, 7.2.1, 7.2.2 (2), 7.2.2 (5), 7.2.2 (6) (new paragraph), 7.3.1, 7.4.6 (new paragraph), and 7.5.2 of Section 7 to this manual have been revised accordingly. The need to address the function and responsibilities of the QA Subcommittee under the MSU Nuclear Oversight Committee in this manual is not warranted. This QA Subcommittee has no authority or responsibility in the implementation of the AP&L quality program.

COMMENT: Within paragraph 7.3.3 of manual, delete reference to NRC and add to end of paragraph" (this alternate method does not apply to ASME procurements)."

RESPONSE: Paragraph 7.3.3 on page 7-4 of Section 7 to this manual has been reworded to delete reference to NRC and to add the subject phrase at the end of the paragraph.

COMMENT: Within paragraph 8.1.1, need to add "(including consumables)" after the word "materials" in first line. (See SRP 17.1.8, #8A).

RESPONSE: The term "including consumables" has been added after the word "materials" in the first line of paragraph 8.1.1 on page 8-1 of Section 8 to this manual.

COMMENT: Within paragraph 10.3.1 of manual, need to address that procedures provide criteria for determining the accuracy requirements of inspection equipment. (See SRP17.1.10, #10A).

RESPONSE: A sentence has been added to the end of paragraph 10.3.1 (3) on page 10-2 of Section 10 to this manual which addresses when accuracy requirements are to be specified in the procedure.

COMMENT: At the end of paragraph 10.3.2 of manual, need to insert these words, "and do not report directly to the immediate supervisors who are responsible for the activity being inspected."  
(See SRP 17.1.10, #10B1).

RESPONSE: Paragraph 10.3.2 on page 10-3 of Section 10 to this manual has been modified to include there words for inspectors performing "construction" related inspections. This follows the intent of Section 17.1 of Standard Review Plan, Rev. 1 for QA during the design and construction phase. The subject words are not applicable to Operational inspections related to normal operating activities, as noted in the Standard Review Plan, Rev. 1, part 17.2.10, #2, which is applicable to QA during the operation phase.

COMMENT: The last sentence in SRP 17.1.10, #10B1, needs to be added in Section 10.3 of manual.

RESPONSE: The subject sentence identified in the Standard Review Plan has been added as paragraph 10.3.2.3 on page 10-3 of Section 10 to this manual. The paragraph also meets the intent of Standard Review Plan, part 17.2.10, 2.6.

COMMENT: As part of Section 10.4 of manual, need to add a paragraph which states "Inspection hold points are inserted in procedures based upon safety significance, complexity of the item or activity, degree of standardization of the item or activity, past performance of the item or activity, procurement frequency, and the ability to verify quality by job site testing".

RESPONSE: The subject words have been included in a new paragraph 10.4.2 on page 10-4 of Section 10 to this manual. Subsequent paragraphs have been renumbered accordingly.

COMMENT: In paragraph 10.4.1 of manual, change the words "may be" in last sentence to "are".

RESPONSE: Last sentence of paragraph 10.4.1 on page 10-4 of Section 10 to this manual has been reworded as requested.

COMMENT: In paragraph 10.5.3 of manual, add the work "all" prior to the word "inspection" in first line.

RESPONSE: Paragraph 10.5.3 on page 10-5 of Section 10 to this manual has been reworded as requested.

COMMENT: Within paragraph 11.3.4, need to address that procedures provide criteria for determining the accuracy requirements of test equipment. (See SRP 17.1.11, #11A1).

RESPONSE: A sentence has been added as paragraph 11.3.4(e) of Section 11 to this manual which addresses when accuracy requirements are to be specified in the procedure.

COMMENT: Need to add as a procedure requirement in paragraph 11.3.4 of manual that provisions for assuring test prerequisites have been met. (See SRP 17.1.11, #11B1.g).

RESPONSE: Paragraph 11.3.4(d) of Section 11 to this manual has been added to assure test prerequisites have been met.

COMMENT: Within paragraph 12.3.3 of manual, need to address the last line in SRP 17.1.12, #12.6.

RESPONSE: A sentence has been added prior to the last sentence in paragraph 12.3.3 on page 12-3 of Section 12 to this manual to address the subject Standard Review Plan requirement.

COMMENT: Need to address the control of "shelf life" in either Section 13.2 or 13.5 of manual. (See SRP 17.2.13, #2).

RESPONSE: Paragraph 13.5.2 on page 13-3 of Section 13 to this manual has been modified to address the control of "Shelf life" items.

COMMENT: In paragraph 14.2.2, (4), delete the words "where appropriate".

RESPONSE: Paragraph 14.2.2 (4) on page 14.2 of Section 14 to this manual has been reworded as requested.

COMMENT: Within paragraph 15.1 of manual, add the words " and as applicable to services (including computer codes)" after the word "documents" in second line. (See SRP 17.1.15, #15.1).

RESPONSE: Paragraph 15.1 on page 15-1 of Section 15 to this manual has been reworded as requested.

COMMENT: Within paragraph 17.1.2 of manual, use the same list of QA records as identified in SRP 17.1.17, #17.1.

RESPONSE: The list of QA records identified in the Standard Review Plan have been included in paragraph 17.1.2 on page 17-1 of Section 17 to this manual.

COMMENT: Need to address the requirements in SRP 17.1.17, #17.4, in Section 17.4 of manual.

RESPONSE: AP&L employs a duplicate storage system for permanent records in accordance with plant procedures and ANS N45.2.9-1974, paragraph 5.6. Paragraphs 17.4.1 and 17.4.1.1 on page 17-4 of Section 17 to this manual have been deleted and replaced with a new paragraph 17.4.1, which identifies our duplicate storage system. This storage system is in compliance with regulatory guide 1.88, Rev. 2, as identified in paragraph 17.1.1 of Section 17 to this manual. The need to address the requirements of the Standard Review Plan, part 17.1.17, #17.4, after the first sentence is not applicable.

COMMENT: Reword first part of paragraph 18.3.2 of manual to note that audits are under the cognizance of the SRC.

RESPONSE: The first sentence to paragraph 18.3.2 on page 18-3 of Section 18 to this manual has been reworded to note that audits are performed under the cognizance of the Safety Review Committee.

In addition to these specific comments made by the NRC, the following changes have been made to this manual as a result of organizational changes, typographical errors or Technical Specification requirement:

1. On page A-2, the Energy Supply Senior Vice President has been changed to J. Griffin.
2. On page 1-1, added paragraph number 1.2.1 to first paragraph under 1.2, General Responsibilities.
3. On page 1-4, reworded responsibilities number 5 and 7 under paragraph 1.4.1.1, for QA Manager.
4. On page 1-8, added responsibility number 8 for the Energy Supply Administrative Service General Manager which states "Assure conformance to the QA Program by instituting the necessary quality-related procedures and instructions within Administrative Services".
5. On page 1-9, added responsibility number 8 under paragraph 1.4.2 for the Vice President Nuclear Operations which states "Overall responsibility for the Fire Protection program implemented at the nuclear plants".
6. On page 1-19, added Quality Control Engineering Supervisor under responsibility number 1, paragraph 1.5.6, for the Manager, Nuclear Quality Control. Organizational chart (Figure F-5) has been revised to show this position.
7. On page 2-1, added "within the FSAR" after the work "Q-list" in second sentence of paragraph 2.2.1, in order to identify where the Q-list is located.
8. On page 2-2, added a new paragraph 2.2.4 in order to explain how expendable and/or consumable items are controlled to assure quality standards are maintained. This was added to support paragraph 8.1.1 on page 8-1, which pertains to measures for the identification and control of materials (including consumables).
9. On page 14-2, changed the work "of" to "or" on last line of paragraph 14.2.2(2).
10. On page 14-5, changed the words "to maintain" to "provided" on the first line of paragraph 14.4.1.
11. On page 18-3, changed the time frequencies of scheduled audits listed under paragraph 18.3.2 to agree with the more restrictive Technical Specification.



12. On page 18-5, revised the last sentence of paragraph 18.4.4, to include the Nuclear Operations Vice President for audit report distribution.
13. On page T1-1, corrected typographical errors under the first and second interpretations.