Nebraska Public Power District
Nebraska's Energy Leader

50.54(a)

NLS2002025

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Cooper Nuclear Station Quality Assurance Program Revision
NRC Docket No. 50-298, DPR-46

Reference: 1) Nebraska Public Power District letter (NLS2000094) from Guy R. Horn to U. S. Nuclear Regulatory Commission, dated October 16, 2000, "Cooper Nuclear Station, Quality Assurance Program, Revision 14b."

Gentlemen:

Pursuant to the requirements of 10CFR50.54(a)(4), the Nebraska Public Power District is transmitting a revision of the Cooper Nuclear Station Quality Assurance (QA) Program for Operation Policy Document (QA Program). This revision constitutes a complete rewrite of the QA Program to improve readability, eliminate unnecessary redundancy, and clarify commitments. This revision also consists of changes which are reductions in commitment. Pursuant to 10CFR50.54(a)(4)(ii), Table 1 of the Attachment provides a discussion of the changes which are reductions in commitment, the reason for the change, and the impact on the overall QA Program. Table 2 of the Attachment contains a discussion of the administrative and editorial changes that are not considered reductions in commitment in accordance with 10CFR50.54(a)(3), and is included for your information.

Prior to the complete rewrite, the QA Program was subject to various other changes that were not reductions in commitment and have not yet been reported to the NRC pursuant to 10CFR50.54(a)(3) since the last QA Program submittal (Reference 1). Accordingly, Table 3 of the Attachment provides a summary of these changes.

2004

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If you have any questions or comments concerning this submittal, please contact David Robinson at (402) 825-5847.

Sincerely,

David L. Wilson
Vice President - Nuclear

/nr

Attachment and Enclosure

Attachment - QA Program for Operation Policy Document Summary of Changes
Enclosure 1 - Nebraska Public Power District Cooper Nuclear Station Quality Assurance Program for Operation Policy Document

cc: U. S. Nuclear Regulatory Commission w/enclosure and attachment
Regional Office - Region IV

NRC Senior Resident Inspector w/enclosure and attachment
Cooper Nuclear Station

NPG Distribution w/o enclosure and attachment

Records w/enclosure and attachment

STATE OF NEBRASKA)
)
NEMAHA COUNTY)

David L. Wilson being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this correspondence on behalf of Nebraska Public Power District; and that the statements contained herein are true to the best of his knowledge and belief.

David L. Wilson

Subscribed in my presence and sworn to before me this 21st day of June, 2002.

LuAnn Bray
NOTARY PUBLIC

GENERAL NOTARY - State of Nebraska
LUANN BRAY
My Comm. Exp. May 11, 2006

Quality Assurance Program for Operation Policy Document
Summary of Changes

Table 1 provides a summary of changes to the Quality Assurance (QA) Program for Operation Policy Document (QA Program) that are considered to be reductions in commitment per 10CFR50.54(a)(4)(ii).

Table 2 provides a summary of changes that are administrative or editorial in nature that either enhance or result in no impact to the overall QA Program, and therefore do not constitute reductions in commitment. This table is included for information only and to meet the reporting requirements as specified in 10CFR50.54(a)(3).

Table 3 provides a summary of changes that are administrative or editorial in nature that were implemented since the last reported update but prior to this revision. These changes were evaluated as not being reductions in commitment. This table is included to meet the reporting requirements as specified in 10CFR50.54(a)(3).

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.5, Definition of Terms (New Section 1.3) Paragraph 1(a)	Deleted statement in clarification to commitment to ANSI N45.2.10-1973 that as existing procedures are revised, definitions shall be evaluated. In general, efforts have been made to ensure verbatim consistency with the ANSI standard definitions. There may be times when procedures will contain definitions other than those provided by this standard, however the intent and scope of daughter standards shall continue to be met.	ANSI N45.2.10-1973 definitions are used for the purposes of the QA Program. Differences in definitions used in procedures are typically minor in nature and still meet the intent and scope of the applicable ANSI standards. Accordingly, this change has no adverse impact on the effectiveness of the QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.5, Definition of Terms (New Section 1.3)	Revised definition for Quality Assurance Plan (QAP). QAPs will not provide detailed requirements for a given functional area. Instead, this will be accomplished through QA Program procedures as prescribed by the QA Program (Section 2) and implementing procedure 0-QA-01. Procedure 0-QA-01 describes the applicability and key requirements of the 10CFR50 Appendix B criteria, and also lists additional requirements in functional areas imposed by the Cooper Nuclear Station (CNS) QA Program. QAPs are intended to describe scope and frequency for the audit function.	The QA Program continues to describe how the 18 criteria are applied through other documents, namely the QA Program Procedure and station procedures. Accordingly, there is no adverse impact on the effectiveness of the QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.1, Organization	Deleted the specific titles of the senior managers. The specific title descriptions were replaced with a more generic discussion of Senior Level Managers in Section 2.1.5.2. Functions from the titles that were deleted have been transferred to this more generic description. The QA functions are still described in detail (Section 2.1.4) to demonstrate organizational independence and responsibilities, which have not been altered by this change. Separate descriptions of the Plant Manager and senior executives also remain in the QA Program. A more detailed organizational chart, showing specific managerial titles and reporting relationships, is included in the USAR and is updated in accordance with 10CFR50.71(e) to reflect any changes.	This change eliminates specific details of senior manager titles and their functions and limits the discussion to a generic description of senior managers. The key functions which were listed under separate titles were combined into this generic description. The Plant Manager, QA functions, and senior executive management descriptions remain separate to ensure that a sufficient, high-level description of the organizational structure is maintained. The functional aspects of existing programs, processes, procedures, and work activities are not being deleted or altered by this change description of the organizational structure. Accordingly, there is no adverse impact on the effectiveness of the QA Program as a result of this change.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
New Section 2.1.9, Outside Contractors (old Section 3.6)	In the area of written agreements with contractors affecting safety-related equipment, replaced the specifics regarding "selected representatives from the NPPD [Nebraska Public Power District] Nuclear Operation and Nuclear Engineering Divisions shall jointly develop and enforce written agreements" with simply "the appropriate representatives from NPPD." This is to avoid confusion with specific organizational structure. Who the "appropriate representatives" are depends on the nature of the agreement and may include personnel from engineering, operations, maintenance, support, etc. Also changed title of section from "Outside Suppliers, Contractors, Subcontractors, and Consultants" to simply "Outside Contractors." The term "Contractors" is intended to be a general term, all-encompassing of suppliers, contractors, subcontractors, and consultants.	Reduction in level of detail to avoid confusion with organizational titles. Change in title is using more generic terminology however still encompasses the wide range of outside agreements (suppliers, contractors, subcontractors, consultants, etc.) and thus is considered equivalent to the original section title. Revised paragraph is more general than previously in that it provides for "appropriate representatives" rather than specific Divisions. Eliminating the overly restrictive text ensures that the right individuals are involved based on scope and type of work. Additionally, these activities are controlled by procedures under the requirements of 10CFR50 Appendix B and therefore there is no negative impact on the effectiveness of the overall QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.5, 10CFR50, Appendix B, Criterion V: Instructions, Procedures, and Drawings	Changed requirement that Plant Manager will review temporary procedure changes within one month, to SORC will review temporary procedure changes within one month. This change is consistent with the requirements for SORC to review procedure changes as discussed in Section 2.1.8.2. In addition, SORC is an advisory body to the Plant Manager. This change is also reflected in the SORC responsibilities section (2.1.8.2).	Change aligns requirements for temporary changes to procedures with those for permanent changes to procedures. This change broadens the expertise of review rather than limiting it to only the Plant Manager. Therefore, this change has no adverse effect on the overall effectiveness of the QA Program.
Section 2.5, 10CFR50, Appendix B, Criterion V: Instructions, Procedures, and Drawings	Added clarification that Level IV Documents (Policies and Guidelines) are not within the scope of the QA Program. This was the intent of establishing a document hierarchy, but it was never explicitly stated in the QA Program.	Policies and Guidelines typically involve such documents governing corporate or business practices, human resources, or desktop guides for how business/processes are to be conducted. Activities subject to the requirements of 10 CFR 50 Appendix B continue to be prescribed in Level III documents, which are within the scope of the QA Program. Accordingly, there is no adverse effect on the overall effectiveness of the QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.10, 10CFR50, Appendix B, Criterion X: Inspection	Deleted details regarding the types of activities covered by audits and surveillances. Specifically, the following examples were deleted: - examination of operating personnel and documentation; - direct QA and Quality Control (QC) for refueling, radiochemistry, and environmental monitoring. The activities listed are simply examples of the many things that require QA inspection. These activities continue to be monitored in accordance with QA procedures which are discussed elsewhere in the QA Program.	Reduction of the level of detail described that is not redundant to other information in the QA Program. However, the intent of 10CFR50 Appendix B Criterion X continues to be met by the revised description. These activities are controlled by procedures under the requirements of 10CFR50 Appendix B Criterion XVIII and therefore there is no negative impact on the effectiveness of the overall QA Program by the elimination of these examples.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.15, 10CFR50 Appendix B, Criterion XV: Nonconforming Materials, Parts, or Component	Deleted requirement that disposition of nonconforming items is determined by the responsible supervisor in conjunction with the QA staff and written conclusions will be reviewed and approved in accordance with maintenance and/or design control procedures. Instead this activity will be performed in accordance with station procedures which will prescribe who is responsible for determining, reviewing, and approving dispositions of nonconforming items.	ANSI N45.2-1977 requires that the responsibility and authority for the disposition of nonconforming items be defined. Accordingly, nonconforming items still require an appropriate level of management review for disposition. The CNS QA Supplier group invokes QA Hold when appropriate, as discussed in Section 2.7 of the QA Program. This change involves removal of an interpretation that would require a QA staff review of every nonconforming item, regardless of the significance. Therefore, there is no adverse impact on the overall effectiveness of the QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 3.2.3, QA Operations Manager and Section 3.2.4, QA Assessment Manager	Entire sections deleted and relocated to Section 2.1. The QA Assessment and Operations Managers' descriptions were combined into a more generic "QA Management" discussion in New Section 2.1.4.2. However, the statement that the QA Managers are responsible for interfacing with the Nuclear Regulatory Commission (NRC) during inspections at CNS was deleted. This is not a required function of QA per applicable ANSI standards and is unnecessary detail. QA Management does in fact interface with the NRC during inspections as necessary, as do other management representatives (including Licensing, who is primarily responsible for facilitating NRC inspector interface).	Level of detail was unnecessary and did not serve to describe the overall QA function but was simply a statement of management prerogative. There is no adverse impact on the effectiveness of the overall QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 4.1.1, Quality Control Inspection	Section deleted in its entirety. Specific items not relocated include: - Discussion regarding the QC program identifying specific work and elements of work to be inspected. This was replaced by stating in Section 2.10 that details for the QC program shall be procedurally established. CNS currently has a series of procedures that clearly delineate the requirements of the QC program. - Discussion regarding timing and frequency, as well as preparation of QC inspection requirements. This is a level of detail that is prescribed by the implementing procedures consistent with the overall 10CFR50 Appendix B and applicable ANSI standard requirements.	Level of detail was removed from the QA Program and allows implementing procedures to dictate specific instructions for the QC program. However, the overall requirements as specified elsewhere in the QA Program will continue to be met. Additionally, compliance with 10CFR50 Appendix B and applicable ANSI standards remains unchanged and therefore provides adequate assurance that there is no adverse impact on the effectiveness of the QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 4.1.3.a, QA Surveillance	Section deleted in its entirety. Much of the information was relocated to Section 2.18, however, the discussion that surveillances are not intended to duplicate QC functions was deleted. It is not relevant to describing how the objectives of the overall audit function are met and is a business efficiency issue.	This was a discussion on efficiency in scheduling to avoid unnecessary duplication of work. The requirements of the audit function as described elsewhere in the QA Program (most notably in Section 2.18) as well as commitments to the related ANSI standards (e.g., N18.7, N45.2, N45.2.12) remain unchanged. Therefore, there is no adverse impact on the effectiveness of the QA Program.

TABLE 1: CHANGES THAT ARE REDUCTIONS IN COMMITMENT		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 4.1.3.b, QA Audits	Section deleted in its entirety. Information not relocated includes: - Discussion that audits are supplemented by performance-based and compliance oriented surveillances. This is now part of the overall audit function as discussed in Sections 1.3 and 2.18 of the QA Program. - Details regarding Audit Scoping Plans (ASPs). ASPs are lower tier documents identifying specific, detailed information for the conduct of audits in accordance with QAPs (discussed in Sections 1.3, 2.18, and 4.3 of the QA Program) and the applicable ANSI standards for auditing functions.	The description of the QA audit function is more appropriately discussed in Section 2.18 of the QA Program. The audit function is used to meet audit objectives stated in QAPs (the purpose of which is discussed elsewhere in the QA Program). The objectives themselves are both performance and compliance based. Compliance with ANSI N45.2-1977 ensures that the audit function is performed in accordance with written procedures and that appropriate checklists are developed. Discussion within the QA Program of the further application of ASPs serves no purpose since they are guidance-level documents. Accordingly, it is not necessary to specifically describe the ASPs. There is no adverse impact on the overall effectiveness of the QA Program as a result of this change.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
List of Effective Pages	Updated to coincide with QA Program changes.	Administrative/editorial change only. Impacts on QA Program are discussed below by specific section.
Table of Contents	Editorial and formatting revisions to coincide with QA Program changes.	Administrative/editorial change only. Impacts on QA Program are discussed in the affected sections.
Corporate Policy Statement	In addition to minor editorial changes, removed specific reference to Section 1.2 for a discussion of NPPD's policy with respect to nuclear safety and quality assurance. This was replaced by simply referring to the document in total, as the entire document represents NPPD's policy.	Editorial change that does not impact the QA Program as described.
List of Acronyms	New list added to facilitate identification of acronyms.	Enhancement to provide additional clarity and improve readability with no adverse impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
All Sections	The entire QA Program has been rewritten to improve readability and clarity. Changes in this category include the following: - Editorial corrections and changes made throughout to eliminate confusing text or unnecessary detail, delete redundancy, and to establish consistency of terminology, verbiage, and use of acronyms; - Added specific revisions/dates to standards and regulatory guides, as applicable, to clarify the intended revision. The revisions/dates are consistent with the original commitments; - Reformatted selected sections, relocated and consolidated information.	Editorial changes that do not affect overall content, commitments or intent of the affected sections. Therefore these changes do not impact the QA Program as described.
Section 1.1, Purpose	Section deleted in its entirety. Key elements of this section were relocated to the introductory statements under Section 1.0, "Program Overview" or deleted due to duplication/redundancy elsewhere in the QA Program.	Editorial change relocating and deleting redundant information. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.2, Policy (New Section 1.1)	Deleted statement that QA documents will identify SSCs to be covered by the QA program to provide compliance. This was redundant to the listing in Table 1 of the QA Program which identifies the specific SSCs that, as a minimum, shall be within the scope of the program.	Editorial change to eliminate redundancy with no impact on the QA Program as described.
Section 1.2, Policy (New Section 1.1)	Deleted detail statements related to the different 10CFR50 Appendix B Criteria. Deletions include the following: - Activities affecting quality shall be documented by approved instructions, procedures, or drawings and such activities will be implemented as documented; - Documentation shall contain qualitative and/or quantitative acceptance criteria to provide a measure of accomplishment. Information is redundant to that in Section 2.5.	Editorial change to eliminate redundancy. No impact on the QA Program as described.
Section 1.2, Policy (New Section 1.1)	Deleted statement that NPPD will staff with properly trained personnel. This is redundant to information contained in Section 2.2.	Editorial change to eliminate redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.2, Policy (New Section 1.1)	Deleted statement that sufficient numbers of licensed and senior licensed operating personnel will be available to assure proper operation of the station. Information was relocated to Section 2.1.6.	Editorial relocation of information. No impact on the QA Program as described.
Section 1.2, Policy (New Section 1.1)	Deleted statement that all personnel shall receive formal instruction in QA and the details of what that instruction would include. Information was relocated to Section 2.2.	Editorial relocation of information. No impact on the QA Program as described.
Section 1.2, Policy (New Section 1.1)	Deleted statement that during the time personnel are performing QA functions, they shall be responsible to the QA Division to maintain organizational independence. This requirement was relocated to Section 2.1.6.	Editorial relocation of information. No impact on the QA Program as described.
Section 1.2, Policy (New Section 1.1)	Deleted statement that it is the policy to maintain quality standards for CNS which will ensure high degree of reliability and safety needed, etc. Redundant to information already in this section.	Editorial change to eliminate redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.2, Policy (New Section 1.1)	Deleted statement that trained technical, engineering, and QA personnel shall be assigned surveillance and audit tasks to ensure compliance with requirements of documents controlling station operation, and deleted the examples of those documents (USAR, Technical Specifications (TS), etc.). Information was relocated or is redundant to information located in Sections 2.1.4, 2.1.6, 2.2, 2.5 and ANSI N45.2-1977.	Editorial change relocating information and eliminating redundancy. No impact on the QA Program as described.
Section 1.2, Policy (New Section 1.1)	Added statement that station is designed, constructed, maintained, and operated in accordance with regulatory requirements, Technical Specifications, and license stipulations (including the USAR and other licensing basis documents, as appropriate).	Enhancement to the QA Program.
Section 1.3, Objectives	Objectives section deleted in entirety. The specific objectives are addressed below.	Editorial changes relocating and/or clarifying information and eliminating redundancy/duplication. No impact on the QA Program as described.
Section 1.3, Objectives	Deleted general purpose statement, which was redundant to information in Section 1.0.	Editorial change to eliminate redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.3, Objectives Paragraph a	Deleted statement that regulatory criteria, codes and standards, and design bases are incorporated into station documents. Information was relocated to Section 2.5	Editorial relocation of information. No impact on the QA Program as described.
Section 1.3, Objectives Paragraph b	Deleted. Information regarding results of tests was relocated to Section 2.11.	Editorial relocation of information. No impact on the QA Program as described.
Section 1.3, Objectives Paragraph c	Deleted statement that nuclear fuel purchase, design, manufacture, inspection, shipping, receipt, installation and operation will be in accordance with approved procedures, regulatory requirements, etc. Relevant aspects of this objective were moved to Section 2.5 of the QA Program.	Editorial change relocating key information with no impact on the QA Program as described.
Section 1.3, Objectives Paragraph d	Deleted statement that station is operated, maintained etc., in accordance with procedures, license, etc. as this is redundant to the discussions contained in Section 2 specific to the 18 criteria of 10CFR50 Appendix B.	Editorial change to eliminate redundancy with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.3, Objectives Paragraph e	Deleted statement that a system is established and maintained to control, safeguard, and permit ready retrieval of quality documents because it is redundant to the ANSI standard commitments and information located in Sections 2.6 and 2.17.	Deletion of these details eliminates redundancy and duplication. No impact on the QA Program as described.
Section 1.3, Objectives Paragraph f	Deleted details that reports, logs, etc. are established and maintained to provide a continuing record of quality related activities as they are redundant to ANSI N45.2.9.	Eliminates duplication and redundancy. No impact on the QA Program as described.
Section 1.3, Objectives Paragraph g	Deleted details regarding CNS personnel training as it was relocated or is redundant to information in Section 2.2. Level of detail is replaced in Section 2.2 with statement regarding indoctrination and training to ensure proficiency is achieved and maintained. It is therefore equivalent in content.	Editorial change reducing detailed verbiage but with no change to the requirements. No impact on QA Program as described.
Section 1.3, Objectives Paragraph h	Deleted statement that station security and nuclear fuel accountability and safeguards are maintained in accordance with approved procedures and instructions. Relocated relevant elements to Section 2.5 of the QA Program.	Editorial change relocating key elements of discussion, with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.3, Objectives Paragraph i	Deleted statement that corrective action documents/reports are properly controlled and filed because this is redundant to information contained in Sections 2.6, 2.16, and 2.17.	Editorial change to eliminate redundancy. No impact on QA Program as described.
Section 1.3, Objectives Paragraph j	Deleted statement that inspection reports issued by NRC are properly resolved and documented because this is unnecessary information, as this is a regulatory requirement (10CFR2.201). Section 1.1 of the QA Program has been revised to include that the station will be operated in accordance with regulatory requirements; therefore, this information is encompassed in that statement.	Editorial change to eliminate unnecessary information reflecting regulatory requirements. Since a premise of the QA Program is compliance with regulatory requirements, there is no impact by this change on the overall QA Program as described.
Section 1.3, Objectives Paragraph k	Deleted statement that fuel shipment activities are to be accomplished in accordance with 10CFR71. This is unnecessary information since Section 1.1 requires that the station be operated in accordance with regulatory requirements, of which 10CFR71 is a part.	Editorial change to eliminate unnecessary information reflecting regulatory requirements. Since a premise of the QA Program is compliance with regulatory requirements, there is no impact by this change on the overall QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.4, Scope (New Section 1.2)	Content moved to Section 1.2. Deleted details regarding the requirements of the QA program applying to all activities which affect the safety-related functions of SSCs. Specifically, deleted "designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, in-service inspection, and modifying" because this is redundant to the introduction of 10CFR50 Appendix B.	Editorial change deleting information redundant to that in 10CFR50 Appendix B. No impact on the QA Program as described.
Section 1.4, Scope (New Section 1.2) *Also affects Sections 3.5, (New Section 2.1.8.2), and 2.5	Changed "Physical Security Plan" to "Security Safeguards Plan." The Physical Security Plan is only a portion of the overall Security Plan. Since the QA Program is intended to cover the entire Security Plan, this change in title was necessary to ensure that the full scope is appropriately reflected.	Administrative change to ensure proper scope of QA Program which does not affect Security Plan or QA requirements thereof. No impact to the QA Program as described.
Section 1.4, Scope (New Section 1.2)	Revised discussion regarding QA activities governing SSCs for clarity and to include NQPs.	Editorial enhancement to the QA Program.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.4, Scope (New Section 1.2)	Added new procedure 0-QA-01, which is an implementing document for the overall QA Program.	Additional detail enhances understanding of the QA Program.
Section 1.5, Definition of Terms (New Section 1.3)	Added term "Audit Function," which encompasses all QA activities used to verify the requirements of ANSI N18.7-1972. Audit function includes audits, surveillances, and field observations.	This new definition is consistent with other sections of the Policy Document which describe audit and surveillance activities. Therefore, there is no impact to the QA Program.
Section 1.5, Definition of Terms (New Section 1.3)	Revised definition of "Audit" from that of ANSI N45.2.10 to ANSI N45.2.12. CNS is still committed to ANSI N45.2.10 and therefore the definition of "Audit" found in that standard still applies. However, for practical purposes the definition found in ANSI N45.2.12 is considered to be a more descriptive definition.	Editorial change to enhance clarity. This change does not affect the CNS commitments to ANSI N45.2.10 or ANSI N45.2.12. Therefore, there is no impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Deleted term "Condition Report." Other terms are used to describe the name of the document(s) implementing 10CFR50 Appendix B Criterion XVI . This level of detail is unnecessary; key elements for compliance with 10CFR50 Appendix B Criterion XVI are located in Section 2.16 of the QA Program.	Deleting unnecessary detail. No impact to the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.5, Definition of Terms (New Section 1.3)	Deleted term "Monitor." This term is not used. The terms "Audit Function," "Audit," or "Surveillance" are sufficient to describe this genre of activities.	Deleted unnecessary term that is redundant to other definitions. No impact to the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Replaced definition for "Quality Assurance Documents" with new definition for "QA Program Procedures." Change also deletes unnecessary details located in Sections 2.5 and 2.17.	Editorial change to eliminate redundancy with no impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Revised terminology for Station Permanent Record File to Station Records Storage Facility.	Editorial change that simply updates terminology with no impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Deleted term "Safeguard (of Nuclear Material)." Definition as stated is not used anywhere in the QA Program and thus serves no useful purpose. The CNS Security Plan provides for any necessary details of safeguarding nuclear materials.	Editorial deletion of irrelevant information. No impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Deleted term "Right of Access." Not necessary as this is defined in ANSI N45.2.13 to which CNS is committed in Section 2.4 of the QA Program.	Editorial change eliminating duplication of definition found in an ANSI standard. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.5, Definition of Terms (New Section 1.3)	Deleted term "Major" from "Major Maintenance, Repair, or Modification." Minor Maintenance, Repair, or Modification remains defined; the term "major" was superfluous. Definition remains unchanged.	Editorial change to delete superfluous information with no impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Deleted specific details for "Nuclear Quality Procedures."	Unnecessary level of detail. Intent of definition remains unchanged. No impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Deleted specific details for "Quality Commercial Grade." The definition now simply refers to 10CFR21 and does not repeat the 10CFR21 definition.	Editorial change to eliminate redundancy and duplication. No impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Revised definition for "Supplier Evaluation" for clarity. Deleted that the methods used are described in NQPs, as this is redundant to information in Sections 1.3, 2.18 and 4.1.	Editorial change to clarify definition and eliminate superfluous information. No impact on the QA Program as described.
Section 1.5, Definition of Terms (New Section 1.3)	Deleted that surveillance activities shall be performed in accordance with the requirements specified in NQPs and QAPs, as this is redundant to information in Sections 1.3, 2.18, and 4.1.	Editorial change to eliminate redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.0, Summary Description	Provided additional information in the introduction statement for clarity. Also added a statement that portions of the 10CFR50 Appendix B criteria are applicable to non safety-related SSCs as determined by risk significance or conditions of the license.	Enhancement to the QA Program.
Section 2.1, Organization	Added that the three level QA concept applies to "risk significant activities or those activities performed to meet conditions of the license."	Enhancement to the QA Program.
Section 2.1, Organization	Replaced details on organizational independence with statement "organizational and functional" independence. This phrase is all encompassing of the overall intent and is therefore equivalent to the specific detail items previously listed.	Editorial clarification to improve readability. By using the term "functional" instead of specific areas, the risk of omission is eliminated. The overall intent of independence is not changed. Therefore, there is no impact on the QA Program as described.
Section 2.1, Organization	Reformatted section and changed section numbers for clarity.	Editorial change with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
New Section 2.1.4, QA Division	Added new section on QA Division, which includes the descriptions of Senior Manager of QA and QA Management as well as QA Division Staff. Describes overall roles and responsibilities of the QA Division.	Enhancement to organizational descriptions consistent with existing QA Program requirements.
New Section 2.1.5.3, Logistics Manager	Added description of Logistics Manager, in charge of purchasing functions, reporting to the Vice President - Corporate Support Services (who reports to the President and CEO). This is a corporate position that also has responsibility over procurement functions (except engineering) at CNS.	Enhancement to organizational descriptions consistent with existing QA Program requirements.
New Section 2.1.8.2, SORC Item (b) (Old Section 3.5.4.c)	Expanded discussion on "review proposed changes to Technical Specifications" to include any changes in procedures, SSCs or facilities, or tests or experiments involving a change in Technical Specifications; included Operating License.	Editorial change clarifying review requirements with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
New Section 2.1.8.2, SORC Responsibilities Item (c) (Old Section 3.5.4.b)	Clarified SORC responsibility to review all proposed tests and experiments and their results, "which involve nuclear hazards not previously reviewed for conformance with Technical Specifications." Revised text requires review of tests and experiments and their results where "a written evaluation pursuant to 10CFR50.59(d)(1) is performed or where nuclear safety could be adversely affected." CNS procedures are designed such that SORC reviews changes where nuclear safety is adversely affected or if an evaluation is performed pursuant to 10CFR50.59(c)(2).	This change enhances the QA Program to ensure that SORC remains focused not only on those activities which may not have been previously reviewed for conformance with Technical Specifications, but where nuclear safety could be adversely affected.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
New Section 2.1.8.2, SORC Responsibilities Item (d) (Old Section 3.5.4.d)	Clarified SORC responsibility to "review proposed changes or modifications to station systems equipment as discussed in the USAR [Updated Safety Analysis Report] . . . " Revised text requires review of "proposed changes or modifications to SSCs [systems, structures, and components] or facilities as discussed in the USAR, or where a written evaluation pursuant to 10CFR50.59(d)(1) is performed, or where nuclear safety could be adversely affected, or which require NRC approval pursuant to 10CFR50.59(c)(2)." CNS procedures are designed such that SORC reviews changes where nuclear safety is adversely affected or if an evaluation is performed pursuant to 10CFR50.59(c)(2). Refers to SSCs and facilities instead of "station systems, equipment, or facility." This change affords more consistency in use of terminology. The term "SSC" is equivalent to the previous terminology.	This change enhances the QA Program by focusing SORC review not only on those items affecting the USAR descriptions (governed by 10CFR50.71(e)) but to activities adversely affecting nuclear safety. This change is consistent with the revised 10CFR50.59 rule.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
New Section 2.1.8.2, SORC Responsibilities (Old Section 3.5.4) Item (j)	Added responsibility for review of temporary changes to procedures that do not change the intent of the original procedure and were approved by two members of the operating staff holding Senior Reactor Operator (SRO) licenses within one month of the change. Previously, the Plant Manager was responsible for this review. This is consistent with a corresponding change to Section 2.5.	Change aligns requirements for temporary changes to procedures with those for permanent changes to procedures. This change broadens the expertise of review rather than limiting it to only the Plant Manager. Therefore, this change has no adverse effect on the overall effectiveness of the QA Program.
Section 2.1.9, Outside Contractors (Old Section 3.6)	Deleted "During the life of CNS," as this phase is unnecessary.	Editorial, administrative change with no impact on the QA Program as described.
Section 2.2, QA Program Item #2	Added clarification to the commitment to ANSI N18.7-1972 with regard to performing audits of all safety-related functions every two years to include audits, surveillances, or field observations. This was previously described in Section 1.2, Policy: ". . . personnel are assigned surveillance and audit tasks to ensure compliance with the requirements of the documents which control station operation, such as. . . QA Program for Operation," etc.	Editorial relocation of information with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.2, QA Program	Deleted specific details regarding procedures, management review and QA audit activities of QC function and procedures, special process controls, use of technical experts, and training. Information is redundant to that found in Sections 2.5, 2.10, and 2.11.	Editorial change to eliminate duplication and redundancy. No impact on the QA Program as described.
Section 2.2, QA Program	Revised discussion to indicate that station procedures, instead of QAPs, will identify specific application of the QA Program to nonessential SSCs. This is due to the fact that the purpose of QAPs has changed.	Administrative change in that identification of specific application of the QA Program to nonessential SSCs is being transferred from one controlled document to another (station procedures are controlled in accordance with 10CFR50 Appendix B Criterion V). The intent has not been altered and therefore there is no impact on the QA Program as described.
Section 2.2, QA Program	Deleted discussion regarding special process controls, test equipment, tools, and skills. Information is redundant to that found in Sections 2.2, 2.9, 2.10, 2.11, and 2.12 of the QA Program.	Editorial change to eliminate duplication and redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.2, QA Program	Deleted discussion regarding use of experienced individuals to assist in performing QA audit functions, including the fact that during these assignments the individuals will have sufficient organizational freedom. Information is redundant to that found in Section 2.18 of the QA Program. ANSI N45.2.23-1978 (discussed in Section 2.19 of the QA Program) also provides a standard for the experience of auditors. The discussion regarding organizational freedom is found in Sections 2.1.4 and 2.1.6.	Editorial change relocating information and to eliminate duplication and redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.2, QA Program	Deleted discussion regarding QA Program training of CNS staff and training of QA Staff. Information is redundant to that found elsewhere in this Section. In addition, it was replaced with a discussion (again in Section 2.2) regarding indoctrination and training of personnel performing activities affecting quality. Finally, Section 2.19 identifies ANSI N45.2.23-1978, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plant" as a standard which provides sufficient detail regarding training and experience.	Editorial change to eliminate duplication and redundancy. No impact on the QA Program as described.
Section 2.2, QA Program	Deleted discussion regarding review and feedback of training and that QA Training would receive management approval as this is unnecessary detail. QA Training requirements are not changed and are still mandated by ANSI N45.2.23.	Editorial change deleting unnecessary detail with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.2, QA Program	Deleted statement that training requirements will be audited periodically by QA to verify scope and effectiveness. This is redundant to the requirements of Section 2.2 of the QA Program which reference specific ANSI N18.7 and Regulatory Guide (RG) 1.33 requirements.	Editorial change eliminating redundancy with no impact on the QA Program as described.
Section 2.2, QA Program Item #2	Added clarification that specific to the performance of audits, ANSI N18.7-1976 applies. This is an enhancement updating audit requirements to a later ANSI standard.	Enhancement to the QA Program.
Section 2.2, QA Program Item #2	Added statement that audit frequencies are in accordance with RG 1.33 Rev. 2. This is a clarification for CNS commitments regarding audit frequencies.	Enhancement to the QA Program that provides clarification for commitment.
Section 2.3, Design Control Paragraph 2(a)	Added descriptive information defining the CNS "Q" List.	Addition of detail to explain a CNS term with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.3, Design Control Paragraph 3(b)	Replaced "NPG [Nuclear Power Group] Construction Management personnel or their designated representative" with "appropriate NPPD personnel." Specific departmental name is unnecessary detail.	Editorial change to eliminate unnecessary detail. The intent is still met and organizational/functional responsibilities remain unchanged. No impact on the QA Program as described.
Section 2.3, Design Control Paragraph 3(c)	Similar to the change in Section 2.3 Paragraph 3 (b), to eliminate unnecessary detail, replaced "construction management evaluation" with "NPPD evaluation."	Editorial change to eliminate unnecessary detail. The intent is still met and organizational/functional responsibilities remain unchanged. No impact on the QA Program as described.
Section 2.5, Instructions, Procedures, and Drawings	Clarified License Basis Documents (Level I under document Hierarchy) to be consistent with the 10CFR54.3 definition of "Current Licensing Basis."	Enhancement to the QA Program.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.5, Instructions, Procedures, and Drawings	Updated terminology under document hierarchy for Level III, Procedures; e.g., "Operational Procedures" replaced by "Operations Procedures," "Work Procedures" replaced by "Maintenance/Work Control Procedures," "Nuclear Power Group Directives" replaced by "Departmental Procedures and Procedures Found in the Operations Manual." This change eliminates obsolete language and more closely reflects the existing functional areas while still providing enough descriptive information and flexibility so as not to change the intent.	Editorial revision updating terminology with no impact on the QA Program as described.
Section 2.6, Document Control	Deleted "retention and retrieval." This is covered in Section 2.17 (QA Records). Relocated information regarding "filing" to Section 2.17. Also relocated the ANSI standard commitment to Section 2.17, as this is more applicable to Records and not Document Control. The commitment itself has not been changed.	Editorial change deleting or relocating superfluous or redundant information. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.7, Control of Purchased Material, Equipment, and Services	Deleted examples regarding procurement specifications. Additional level of detail is not necessary. The examples are among many procurement specifications that are controlled by administrative procedures under the requirements of 10CFR50 Appendix B, Criterion VII.	Editorial change to eliminate examples that are redundant to regulatory requirements. No impact on QA Program as described.
Section 2.7, Control of Purchased Material, Equipment, and Services	Clarified discussion regarding items in segregated areas requiring Site Vice President permission for release. This paragraph was intended to describe the process for items placed on "Hold" status due to nonconformances, which is clear later in the paragraph. Therefore, this revision simply eliminated any confusion by indicating in the opening sentence the treatment of items on "Hold" status.	Editorial change that provides clarification with no impact on the QA Program as described.
Section 2.9, Control of Special Processes	Replaced discussion on "maintenance modification control methods and station procedures are periodically reviewed by CNS QA personnel" with one that more clearly explains the QA Division function in the area of special processes.	Editorial change providing clarification and enhancement of the QA Program.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.10, Inspection	Replaced the ambiguous statement that QC inspections are assigned to the organization responsible for performance of the activity with a more precise description indicating that CNS Management ensures QC inspections are appropriately assigned.	Eliminated ambiguous information. No impact on the QA Program as described.
Section 2.10, Inspection	Revised statement that "controlling documents pertaining to quality-related activities shall receive SORC approval to ensure incorporation of appropriate quality requirements" to "SORC reviews the controlling documents (procedures) governing inspection implementation to ensure incorporation of appropriate quality requirements." This change provides clarification on what the specific expectation for SORC review is. Also deleted the statement that QA is a non-voting member of SORC, as this was already stated in Section 2.1.8.	Clarification that does not change SORC responsibilities as outlined in Section 2.1.8.2. This simply clarifies the SORC role with regard to this specific criterion. Accordingly, there is no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.12, Control of Measuring and Test Equipment	Deleted specific details regarding QA functions that were redundant to other sections. Deleted statements regarding the requirement for independent checks of calibration activities and that surveillances will verify procedures are followed, adequate records are kept, and regularly scheduled adjustments are made. These requirements are simply restatements of the overall QA audit/surveillance functions as well as ANSI standards to which CNS is committed, and thus are unnecessary detail. The intent of the criterion continues to be met and provisions elsewhere in the QA Program ensure that adequate oversight is maintained.	Editorial changes eliminating redundancy. No impact on the QA Program as described.
Section 2.13, Handling, Storage, and Shipping Paragraph 1(c)	Deleted statement that QA activities verify ANSI N45.2.2 is met (with noted exceptions). This is redundant to a statement earlier in this section as well as the overall QA function descriptions elsewhere in the QA Program.	Editorial change to eliminate redundancy/duplication. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.15, Nonconforming Materials, Parts, or Components	Replaced "Warehouse and maintenance procedures" with "station procedures" to eliminate possible confusion on the "type" of procedure. Overall requirements remain unchanged and station procedures are subject to the same review and approvals as "warehouse and maintenance" procedures.	Editorial change with no effect on content or requirements. No impact on the QA Program as described.
Section 2.15, Nonconforming Materials, Parts, or Components	Deleted statement that essential equipment designated as scrap will be identified and tagged to prevent inadvertent use. Information is redundant to that found in Sections 2.7 and 2.8.	Editorial change to eliminate redundancy/duplication. No impact on the QA Program as described.
Section 2.15, Nonconforming Materials, Parts, or Components	Deleted discussion regarding approved procedures for rework/repair. Information is redundant to that found in Sections 2.5, 2.10, 2.17, and 2.18 of the QA Program.	Editorial change to eliminate duplication and redundancy with no impact on the QA Program as described.
Section 2.16, Corrective Action	Added "violations of regulations or code requirements" to list of examples of those items documented in the Corrective Action Program to improve clarity.	Enhancement to the QA Program.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.17, Quality Assurance Records	Added commitment to ANSI Standard N45.2.9-1974. This was relocated from Section 2.6, Document Control.	Editorial relocation of information. No impact on the QA Program as described.
Section 2.17, Quality Assurance Records	Deleted details of how QA records are stored, which duplicated information found in Section 2.6 and information previously located in Section 6.0 (relocated to Section 2.17) of the QA Program as well as related ANSI standards.	Eliminated duplicate information from other sections of the QA Program. Additionally, the appropriate ANSI standards are referenced, eliminating the need to outline specific details. This is an editorial change with no impact on the QA Program.
Section 2.17, Quality Assurance Records	Replaced specific details regarding how a change to a record is made by indicating that the change must be clearly identified and authorized. This change is consistent with the guidance in ANSI N45.2.9-1974.	Eliminated excessive detail in that CNS is committed to ANSI N45.2.9-1974. Editorial change with no impact on the QA Program.
Section 2.17, Quality Assurance Records	Deleted information regarding auditing, receiving, and disposal of records as it is redundant to that contained in ANSI N45.2.9-1974.	The appropriate ANSI standard is referenced, eliminating the need to outline specific details. This is an editorial change with no impact on the QA Program.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.18, Audits	Added commitments to specific ANSI standards and Regulatory Guides to clarify CNS intent in this area. Also clarified that CNS is committed to RG 1.33 Revision 2 for frequency of audits.	Enhancement to the QA Program.
Section 2.18, Audits	Revised discussion regarding the function of QAPs as describing "specific requirements associated with the scope and frequency of audits" instead of defining the application of the QA Program to specific functional areas, etc. Deleted the discussion of scheduling audits/surveillances. This changes the level of detail in the QA Program and transfers the burden of scope definition to the QAPs. Additionally, this information is redundant to the ANSI standards related to the audit function.	Editorial change reducing level of detail to eliminate duplication with ANSI standard verbiage. No impact to the QA Program as described.
Section 2.18, Audits	Deleted Senior Manager of QA responsibilities which are discussed in Section 2.1.4.1.	Editorial change to eliminate redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.18, Audits	Deleted general statement regarding audit scope (representative portion of documentation, observation of activities, etc.). This is redundant to ANSI N45.2-1977 (discussed in Section 2.2 of the QA Program).	Editorial change to eliminate redundancy. No impact on QA Program as described.
Section 2.18, Audits	Deleted statement regarding verification of compliance with internal rules, procedures, and license conditions at least once per 24 months. This was superseded by the commitment to RG 1.33, Revision 2, which prescribes audit frequencies.	Editorial change to eliminate redundant information that is contained in a referenced Regulatory Guide. No impact to the QA Program as described.
Section 2.18, Audits	Deleted statement regarding audit frequency of training, qualification, and performance of operating staff at least once per 24 months. This was superseded by the commitment to RG 1.33, Revision 2, which prescribes audit frequencies.	Editorial change to eliminate redundant information that is contained in a referenced Regulatory Guide. No impact to the QA Program as described.
Section 2.18, Audits	Deleted commitment to audit Emergency Plan and implementing procedures once per 12 months. This is redundant to the regulatory requirement in 10CFR50.54(t).	Editorial change to eliminate information that is redundant to a federal regulation. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.18, Audits	Deleted commitment to audit Security Plan and implementing procedures once per 12 months. This is redundant to regulatory requirements in 10CFR50.54(p) and 10CFR73.	Editorial change to eliminate information that is redundant to a federal regulation. No impact on the QA Program as described.
Section 2.18, Audits	Revised commitments for fire protection audits. Replaced specifics with a reference to NRC Generic Letter 82-21.	Editorial change to more accurately express the commitment with no change in the actual commitment. No impact on the QA Program as described.
Section 2.18, Audits	Revised commitment regarding auditing of the Radiological Environmental Monitoring Program (REMP) and the Offsite Dose Assessment Manual (ODAM) to reflect the hierarchy as discussed in CNS TS Section 5.5.1. TS 5.5.1 discusses radioactive environmental monitoring (i.e., REMP) as well as radioactive effluent controls as programs governed by the ODAM. The commitment was revised accordingly. The actual content of the commitment remains unchanged.	Editorial change to reflect appropriate terminology and hierarchy of documents as reflected in CNS TS with no change to the content of the commitment. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 2.18, Audits Item #2	Revised commitment to Section 4.0 of ANSI N18.7-1972 with respect to conduct of audits was revised to Section 4.5 of ANSI N18.7-1976. This enhancement updates the commitment for conduct of audits to a later revision of the ANSI standard.	Enhancement to the QA Program.
Section 2.19, Additional ANSI Standards	Changed "Water Chemistry Department" to "chemistry department personnel." This replaces a specific title with the basic function.	Editorial change eliminating specific title. No impact on QA Program as described.
Section 3.0, Organization and Responsibilities	Entire section deleted. Information was relocated to Section 2.0 of the QA Program. Information was also rewritten for clarity (editorial changes only; changes needing further explanation follow).	Editorial format change with no impact on the QA Program as described. Note that any deletions or changes that are beyond editorial revisions are captured in Table 1; changes of an editorial nature which warranted further explanation can be found in Table 2 in the Section 2 series.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 3.2.3, QA Operations Manager	Entire section was deleted. The QA Operations and QA Assessment Managers' descriptions were combined into a more generic "QA Management" discussion and key functional responsibilities were relocated to Section 2.1.4.2. Deleted responsibility to verify that solutions to safety-related problems have been implemented. This is unnecessary detail in that this type of activity is performed by the QA Division on a regular basis during normal auditing activities. QA Management reviews audit/surveillance reports, including follow-up items.	Editorial change relocating information and deleting detailed information that is redundant to that which is already described relative to the QA audit function. No impact on the QA Program as described.
Section 3.2.3, QA Operations Manager	Deleted statement that QA Operations Manager is a non-voting member of SORC. This was replaced with the generic statement that a member of QA Management serves as a non-voting member on SORC (Section 2.1.4.2). The specific title is unnecessary detail.	Editorial change eliminating specific organizational title but with no effect on function. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 3.2.4, QA Assessment Manager	Entire section was deleted. The QA Assessment and QA Operations Managers' descriptions were combined into a more generic "QA Management" discussion and key functional responsibilities were relocated to Section 2.1.4.2.	Editorial change relocating information and utilizing generic organizational titles rather than specific titles. No impact on the QA Program as described.
Section 3.2.5, QA Supervisors	Entire section was deleted. Key functions of QA Supervisors were relocated to the Section 2.1.4.2 pertaining to the generic functions of QA Management. Included the maintenance of the QA Program and implementing documents as part of the relocation of the functional responsibilities. Deleted responsibility to identify any condition adverse to quality to the appropriate QA Manager as this is redundant to the requirements contained in 10CFR50 Appendix B, Criterion XVI, and Section 2.16 of the QA Program.	Editorial change relocating information and utilizing generic organizational titles rather than specific titles. No impact on the QA Program as described.
Section 3.2.6, QA Staff	Entire section was deleted. New section 2.1.4 outlines the key responsibilities of the QA Division. New Section 2.1.4.3 discusses the QA Division Staff.	Editorial change relocating information. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 4.1, NPPD Internal Documents (New Section Title, Station Procedures)	Rewritten for clarity. Excessive detail was replaced with a more general description to eliminate wordiness and improve readability.	Editorial change that does not alter the overall intent of the description; therefore there is no impact on the QA Program as described.
Section 4.1.1, Quality Control Inspection	Section deleted in its entirety. Most of the information was relocated or redundant to information already in the QA Program: - Who performs QC inspections is discussed in Section 2.10 and Table 2 of the QA Program. - QA Management responsibilities and authorities are discussed in Sections 2.1.4.2 and 2.10 of the QA Program - Discussion regarding surveillance testing is redundant to ANSI 18.7-1972 requirements.	Editorial change relocating and eliminating redundant information. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 4.1.3.a, QA Surveillance	Section deleted in its entirety. Information that is relocated or is redundant includes: - Description, purpose, objective, and function of surveillances. Information is found in Section 1.3 under "surveillance" and "audit function," and Section 2.18 of the QA Program. - Scheduling and frequency. These are prescribed by QAPs in accordance with RG 1.33, Revision 2, as described in Sections 1.3, 2.18, and 4.1.2 of the QA Program; therefore, additional discussion is not warranted.	Editorial changes for clarification, to relocate information, and eliminate redundancy. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 4.1.3.b, QA Audits	Section deleted in its entirety. Information that is relocated or is redundant includes: - Description, purpose, objective, and function of audits. Information is found in Sections 1.3 and 2.18 of the QA Program. This includes reporting of audit results. - Discussion of independence. Information is found in Sections 2.1 and 2.18 of the QA Program. - QA Management responsibilities. Relocated to Section 2.1.4.2 of the QA Program. - Discussion that the Safety Review and Audit Board (SRAB) or other NPPD executives may initiate and carry out special QA Audits. Relocated to Section 2.18 of the QA Program.	Editorial changes for clarification, to relocate information, and eliminate redundancy. No impact on the QA Program as described.
Section 4.3, QAPs (Old Section 4.1.3)	Deleted that format and content of QAPs shall be specified in NQPs. Also, deleted information regarding routing of significant changes. Content will be as described elsewhere in the QA Program, and format and revision control is now governed by the station procedure writer's guide and procedure change process.	Administrative change that imposes requirements equal to or more restrictive than previous controls over format, content, and revision of QAPs. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 5.0, Method of Implementation	Section deleted in its entirety. Most of the information was relocated, including: - implementation of the QA Program through procedures, etc. (relocated to Section 1.2) - management responsibilities relocated to Section 2.1.5. - QA Division responsibilities relocated to Section 2.1.4.	Editorial change relocating information to improve clarity and readability. No impact on the QA Program as described.
Section 5.0, Method of Implementation	Deleted that problems identified by QA review of procedures will be communicated to the line organization in a timely manner for correction. Since this is a routine audit function requirement, which is prescribed by ANSI N45.2.12, specific discussion is redundant.	Editorial change to eliminate redundancy. No impact on QA Program.
Section 5.0, Method of Implementation	Deleted that situational and periodic review by QA will consider compatibility of lower tier procedures with requirements and commitments of higher level documents. This discussion is a level of detail that is unnecessary as the description of the overall QA Program, and that activities within the scope of the QA Program are subject to QA audit/surveillance, adequately addresses this point.	Editorial change to eliminate superfluous information. Since procedures governing the QA audit function are required to ensure QA Program requirements are met, these specific details are unnecessary. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 5.0, Method of Implementation	Deleted statement that QA Division activities shall be coordinated with SORC/SRAB and the manner in which they will be conducted. This level of detail adds no value to the description of the QA Program. It is a business issue with regard to scheduling, etc.	Editorial change eliminating unnecessary detail of a business nature. The coordination between SRAB, SORC, and QA is a management expectation. The requirements in applicable ANSI standards for appropriate scheduling continue to be met. No impact on the QA Program as described.
Section 5.0, Method of Implementation	Deleted statement that QA Staff shall maintain an up-to-date summary of policies, plans, procedures. This information is redundant to that found in Section 4.0 of the QA Program.	Section 4.0 of the QA Program adequately addresses this specific requirement. Editorial change to eliminate duplication with no impact on the QA Program as described.
Section 6.0, Records Retention and Disposition	Entire section deleted. Information was relocated to Section 2.17. No additional changes were made.	Editorial change relocating information. No impact on the QA Program as described.
Section 7.0, References (New Section 5.0)	Updated references.	Editorial change with no impact on QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 8.0, Figures	Deleted. This section only contained one Figure. The generic organizational structure, including generic reporting relationships, are described in the text of the QA Program. Since the descriptions are also being revised to be more generic in terms of function, there is no longer a need for a pictorial description.	The key functions and reporting relationships are not changing as a result of this deletion. Additionally, sufficient description is found in the text of the QA Program that refers to generic functions instead of the specific position titles. Therefore there is no impact on the QA Program as described.
Section 9.0, Tables (New Section 6.0)	Moved to Section 6.0. Editorial changes to ensure consistency in terminology, correct cross-references due to section number changes, and improve clarity.	Editorial changes with no impact on the QA Program.
Section 9.0, Tables (New Section 6.0) Table 1, Items I.A and I.B	Changed "reactor *primary* vessel" and "reactor *primary* vessel supports" to "reactor *pressure* vessel and "reactor *pressure* vessel supports," respectively. Clarification of terms.	Editorial clarification of terms with no effect on content or impact to the QA Program as described.
Section 9.0, Tables (New Section 6.0) Table 1, Item III.L	Changed "Rod Position Indicator" to "Rod Position Indication System."	Editorial clarification of term with no effect on the content or impact to the QA Program as described.
Section 9.0, Tables (New Section 6.0) Table 1, Item V.A.3	Deleted reference to GE (General Electric). It is unnecessary to have suppliers/vendors listed in the QA Program.	Editorial change eliminating unnecessary detail with no impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 9.0, Tables (New Section 6.0) Table 1, Item VI.C	Added "Control Room Emergency Filter (CREF) System" to the system title, as this is the term used to describe the system at CNS.	Editorial change enhancing the QA Program to improve clarity.
Section 9.0, Tables (New Section 6.0) Table 2	Reformatted table for clarity. Deleted discussion regarding "Assessments" in the "Third Level" column. Assessments are no longer defined as a separate activity. Key elements of this discussion are already addressed through the audit function description. The audit function is conducted through audits and surveillances as described elsewhere in the QA Program.	Editorial change to update terminology and eliminate redundancy/duplication. No impact on the QA Program as described.

TABLE 2: ADMINISTRATIVE/EDITORIAL CHANGES		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 9.0, Tables (New Section 6.0) Table 2	In third column, deleted that Assessments are performed under the direction of Senior Line Management personnel. The term "Assessments" is no longer being used as it is superseded by "audit" or "surveillance" (or "audit function"). Additionally, the ANSI standards indicate that individuals performing audit functions should have sufficient independence and organizational freedom. Therefore it is more appropriate that audit functions are performed under the direction of QA management and not Senior Line Management.	Revised description to update terminology and ensure consistency with the applicable ANSI standards. Therefore this is an improvement to the QA Program as described.
Section 9.0, Tables (New Section 6.0) Table 2	In third column, replaced term "assessments" with "such activities" (i.e., audits and surveillances) are conducted to provide the highest level of overview of implementation of the QA Program.	Editorial change to update terminology with no change to intent or content. No impact on the QA Program as described.
Section 10, Control of Computer Software and Data (New Section 3.0)	Deleted. Information was relocated to Section 3.0.	Editorial change relocating information with no impact on the QA Program.

TABLE 3: ADDITIONAL ADMINISTRATIVE/EDITORIAL CHANGES MADE PRIOR TO COMPLETE REWRITE		
QA Program Section	**Description/Justification**	**QA Program Impact**
Various	Changed title of Sr. Vice President of Energy Supply to Sr. Vice President of Nuclear and Enterprise Effectiveness throughout document due to realignment of Sr. level responsibilities at the corporate level. Subsequent to this change, the title of Sr. Vice President of Nuclear and Enterprise Effectiveness was changed to Vice President - Nuclear throughout the document. Additionally, the title of Vice President of Nuclear Energy was changed to Site Vice President.	This is an administrative editorial change only; however, overall responsibility for Nuclear activities remains at the Sr. VP level and therefore, there is no impact on the QA Program as described. The subsequent title changes were made to reflect current business needs. Responsibilities and methods of implementation of the requirements in the QA Program remain unchanged.
Section 1.5, Definition of Terms	Replaced references to "unreviewed safety question" with "NRC approval pursuant to 10CFR50.59(c)(2)" or "require NRC approval pursuant to 10CFR50.59(c)(2)." *NOTE: After the complete rewrite of the QA Program, this section was relocated to Section 1.3.*	This is an administrative editorial change only. Terminology is being changed to maintain consistency with the revised 50.59 rule. No impact on the QA Program as described.

TABLE 3: ADDITIONAL ADMINISTRATIVE/EDITORIAL CHANGES MADE PRIOR TO COMPLETE REWRITE		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 1.5, Definition of Terms	Added definitions of authentication, data, software, and software quality assurance. *NOTE: After the complete rewrite of the QA Program, this section was relocated to Section 1.3*	Definitions were added as enhancements to support the Software Quality Assurance program and control of computer/data requirements.
Section 1.5, Definition of Terms	Clarification of "Essential" as "Safety-related." Also, revised definition of "Safety-related" to accurately reflect the definition as defined in the USAR. *NOTE: After the complete rewrite of the QA Program, this section was relocated to Section 1.3.*	Changes are enhancements or clarifications to the QA Program.
Section 2.14, Inspection, Testing, and Operating Status	Clarified current tagout practices/process.	Changes are enhancements or clarifications to the QA Program.
Section 2.17, Quality Assurance Records	Incorporated guidance provided in Nuclear Information Records Management Association (NIRMA) TG11-1998 for record authentication (New Section 2.17.1).	New requirements do not supersede or revise existing record management requirements described or committed to by the QA Program.

TABLE 3: ADDITIONAL ADMINISTRATIVE/EDITORIAL CHANGES MADE PRIOR TO COMPLETE REWRITE		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 3.2, Organization and Responsibilities	Added two new management positions to reflect a station organization change: Senior Manager of Training and General Manager of Engineering and Technical Services. *NOTE: After the complete rewrite of the QA Program, organizational description was moved to Section 2.1. Additionally, details regarding specific titles were replaced with a more generic "Senior Level Manager" description.*	Administrative change reflecting new management position. The functional aspects of existing programs, processes, procedures, and work activities are not being deleted or altered by this change in organizational structure. No impact on the QA Program as described.

TABLE 3: ADDITIONAL ADMINISTRATIVE/EDITORIAL CHANGES MADE PRIOR TO COMPLETE REWRITE		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 3.2.9, Plant Manager	Deleted Facilities and Construction department, as this department will no longer report directly to the Plant Manager. This department is now a part of maintenance which still reports to the Plant Manager. *NOTE: After the complete rewrite of the QA Program, the discussion on Plant Manager was moved to Section 2.1.5.1.*	Minor change deleting a level of detail discussing Plant Manager's functional areas. Although the Facilities and Construction department no longer reports *directly* to the Plant Manager, as it is now part of the maintenance department, the functional authority is not altered since Maintenance reports to the Plant Manager. Additionally, the functional aspects of the existing programs, processes, procedures, and work activities are not being altered or deleted by this change in organizational structure. Therefore, there is no impact to the QA Program as described.

TABLE 3: ADDITIONAL ADMINISTRATIVE/EDITORIAL CHANGES MADE PRIOR TO COMPLETE REWRITE		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 3.4, SRAB	Replaced references to "unreviewed safety question" with "require NRC approval pursuant to 10CFR50.59(c)(2)." Changed reporting relationship of SRAB from the Vice President of Nuclear Energy to the Senior Vice President of Nuclear and Enterprise Effectiveness. This was subsequently revised to reflect title changes; i.e., SRAB reports to the Vice President - Nuclear (formerly the Sr. Vice President of Nuclear and Enterprise Effectiveness). *NOTE: After the complete rewrite of the QA Program, this section was relocated to Section 2.1.7.*	This is an administrative editorial change only. Terminology is being changed to maintain consistency with the revised 50.59 rule; no impact on the QA Program as described. No impact as this change allows SRAB to report to a higher level authority than before.
Section 3.5, SORC	Replaced references to "unreviewed safety question" with "require NRC approval pursuant to 10CFR50.59(c)(2)." *NOTE: After the complete rewrite of the QA Program, this section was relocated to Section 2.1.8.*	This is an administrative editorial change only. Terminology is being changed to maintain consistency with the revised 50.59 rule; no impact on the QA Program as described.

TABLE 3: ADDITIONAL ADMINISTRATIVE/EDITORIAL CHANGES MADE PRIOR TO COMPLETE REWRITE		
QA Program Section	**Description/Justification**	**QA Program Impact**
Section 6.0	Added that electronic records stored on optical disc will apply the requirements of NRC Generic Letter 88-18, "Plant Record Storage on Optical Discs." *NOTE: After the complete rewrite of the QA Program, this item was relocated to Section 2.17.2.*	This change does not supersede or revise existing records requirements as currently described in the QA Program; it simply expands the guidance to describe additional methods (deemed acceptable by the NRC per Generic Letter 88-18) for storing electronic records on optical disc.
New Section 10.0, Control of Computer Software and Data	Added New Section 10.0, "Control of Computer Software Data." *NOTE: After the complete rewrite of the QA Program, this section was relocated to Section 3.0.*	This change expands the guidance to describe additional acceptable methods of authentication of QA records. Additional guidance and requirements are warranted due to acceptability of new information management technologies. This is an enhancement with no impact on the QA Program as described.

Correspondence Number: NLS2002025

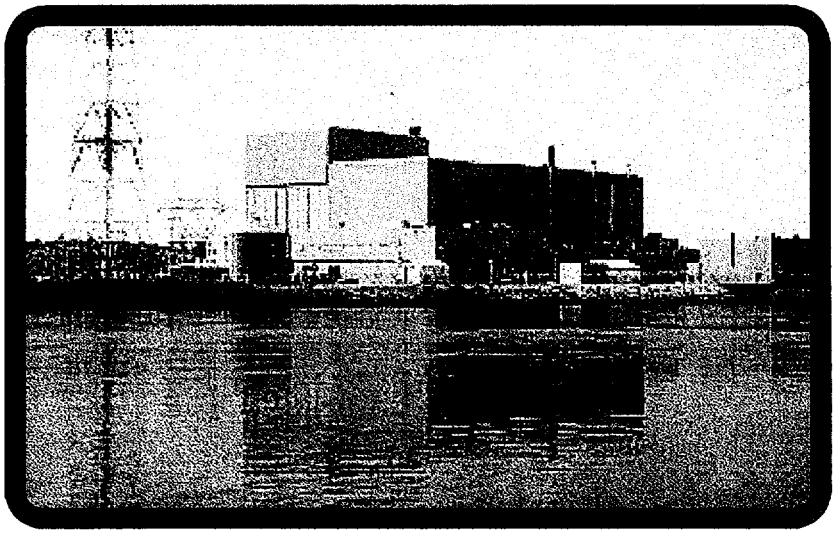
The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described for information only and are not regulatory commitments. Please notify the NL&S Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
None	

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

QUALITY ASSURANCE PROGRAM FOR OPERATION POLICY DOCUMENT



Nebraska Public Power District

Nebraska's Energy Leader

CNS QA PROGRAM FOR OPERATION POLICY DOCUMENT
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NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
QUALITY ASSURANCE PROGRAM FOR OPERATION POLICY DOCUMENT

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LIST OF ACRONYMS

ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASNT	American Society for Nondestructive Testing
ASTM	American Society for Testing and Materials
CAP	Corrective Action Program
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CNS	Cooper Nuclear Station
FME	Foreign Material Exclusion
IPE	Individual Plant Evaluation
NDE	Nondestructive Examination
NIRMA	Nuclear Information Records Management Association
NPPD	Nebraska Public Power District
NQP	Nuclear Quality Procedure
(US)NRC	(United States) Nuclear Regulatory Commission
ODAM	Offsite Dose Assessment Manual
PRA	Probabalistic Risk Assessment
QA	Quality Assurance
QAP	Quality Assurance Plan
QC	Quality Control
RCPB	Reactor Coolant Pressure Boundary
SORC	Station Operations Review Committee
SQA	Software Quality Assurance
SRAB	Safety Review and Audit Board
SRO	Senior Reactor Operator
SSC	Structure, System, or Component
TRM	Technical Requirements Manual
USAR	Updated Safety Analysis Report

CORPORATE POLICY STATEMENT

This document establishes and describes the policies and practices of the Quality Assurance Program applicable to the operation of the Cooper Nuclear Station and the support activities of all Nebraska Public Power District (NPPD) Nuclear Divisions. NPPD's policy with respect to nuclear safety and quality assurance is detailed in this document.

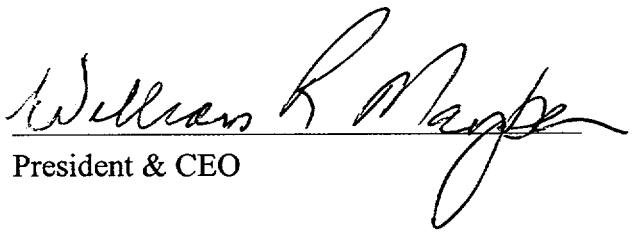
Each Nuclear Division is responsible for the development of policies and procedures which implement this Quality Assurance Program. Other divisions and departments at NPPD may also have responsibilities under this program and shall comply as described in appropriate implementing procedures.

The Safety Review and Audit Board, Station Operations Review Committee, and the Quality Assurance Division shall monitor NPPD's nuclear program and provide management with evaluations and assessments regarding the effectiveness of implementation of the program. When evaluations and assessments identify a concern, management shall take expeditious action to correct any undesirable condition(s) including, when appropriate, action to preclude repetition of such condition(s).

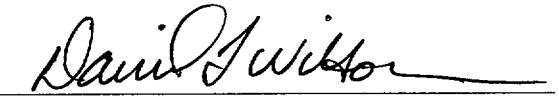
NPPD personnel shall have the organizational freedom to identify concerns and propose corrective and preventive action necessary to enhance NPPD's nuclear program.

The assurance of safe and reliable operation of Cooper Nuclear Station is everyone's duty. Quality shall be everyone's responsibility.

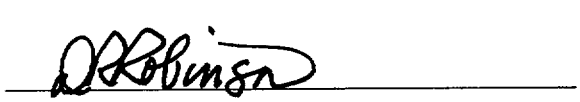
APPROVED:



President & CEO



Vice President - Nuclear



Senior Manager of Quality Assurance

CORPORATE POLICY STATEMENT

This document establishes and describes the policies and practices of the Quality Assurance Program applicable to the operation of the Cooper Nuclear Station and the support activities of all NPPD Nuclear Divisions. The District's policy with respect to nuclear safety and quality assurance is detailed in Section 1.2 of this document.

Each Nuclear Division is responsible for the development of policies and procedures which implement this Quality Assurance Program. Other divisions and departments at NPPD may also have responsibilities under this program and shall comply as described in appropriate implementing procedures.

The Safety Review and Audit Board, Station Operations Review Committee, and the Quality Assurance Division shall monitor the District's nuclear program and provide management with evaluations and assessments regarding the effectiveness of the implementation of the program. When evaluations and assessments identify a concern, management shall take expeditious action to correct any undesirable condition(s) including, where appropriate, action to preclude repetition of such condition(s).

District personnel shall have the organizational freedom to identify concerns and propose corrective and preventive action necessary to enhance the District's nuclear program.

The assurance of safe and reliable operation of Cooper Nuclear Station is everyone's duty. Quality shall be everyone's responsibility.

APPROVED:

President & CEO

Senior Vice President of Nuclear & Enterprise Effectiveness

Senior Manager of Quality Assurance

1.0 PROGRAM OVERVIEW

The Cooper Nuclear Station (CNS) Quality Assurance (QA) Program for Operation (Program) was developed by Nebraska Public Power District (NPPD) in response to the requirements of 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants." The Program ensures CNS is designed, maintained, and operated in a manner that will provide the highest practical degree of safety and reliability. Implementation of the QA Program also manages the risk associated with changes or challenges that occur during operation and maintenance of the facility. The original CNS QA Program utilized the guidance provided by the United States Atomic Energy Commission (now the Nuclear Regulatory Commission (NRC)) publications WASH-1283 (5-24-74), WASH-1284 (10-26-73), and WASH-1309 (5-10-74) ("rainbow" series) except where specific exceptions and clarifications are noted within this document.

This Policy Document establishes and describes the policies and practices of the QA Program applicable to the operation and support of CNS. This document also identifies applicability of regulations and standards to which CNS is committed.

NPPD is committed to the continuous development of a QA Program which will meet the requirements of 10CFR50, Appendix B and other applicable regulations as may be promulgated by the NRC. This commitment applies to all NPPD organizations associated with the operation of CNS to assure that a high standard of quality will be maintained during nuclear plant operation. Section 2 of this document presents a summary discussion of the QA Program as applicable to the 18 criteria of 10CFR50, Appendix B.

1.1 Policy

It is the policy of NPPD to use its best efforts to assure that CNS is designed, constructed, maintained, and operated in a manner that will provide the highest practical degree of safety and reliability. Additionally, CNS shall be designed, constructed, maintained, and operated in accordance with regulatory requirements, Technical Specifications, and license stipulations, including the Updated Safety Analysis Report (USAR) and other licensing basis documents, as appropriate. Structures, systems, and components (SSCs) are designed, fabricated, erected, maintained, and modified to quality standards appropriate to their importance to the safety function. Implementation of the QA Program assures the health and safety of the public through compliance with the criteria 10CFR50 Appendix B as well as specific commitments described herein.

Management of NPPD Departments which support operation of CNS are responsible for the development of policies and procedures which implement this QA Program. NPPD Management is also responsible to ensure adherence to those policies and procedures. The Safety Review and Audit Board (SRAB), Station Operations Review Committee (SORC), and the QA Division shall monitor implementation of the QA Program and provide management with evaluations and assessments regarding its effectiveness. When evaluations and assessments identify a concern, management shall take expeditious action to correct any undesirable condition(s) including, where appropriate, action to preclude repetition of such condition(s).

NPPD personnel shall have the organizational freedom to identify concerns and propose corrective and preventive action necessary to enhance the NPPD nuclear program.

The assurance of safe and reliable operation of CNS is everyone's duty. Quality shall be everyone's responsibility.

1.2 Scope

The QA Program applies to, at a minimum:

- SSCs, and activities affecting SSCs, that are designed to prevent or mitigate the consequences of postulated accidents which could cause undue risk to the health and safety of the public, and other selected systems as defined within this document;

- Conditions or requirements captured in CNS documents requiring NRC approval (e.g., Emergency Plan, QA Policy Document, Security Safeguards Plan, USAR, etc.);

- Applicable Code of Federal Regulations requirements;

- Other commitments made to the NRC;

- Other activities or SSCs as dictated by management or risk significance.

This program specifically applies to, but is not necessarily limited to the nuclear fuel, the reactor coolant system and its auxiliaries and controls, the reactor protection and engineered safety systems, the reactor containment system, portions of the radioactive waste disposal system, and other systems and components required for safe, efficient, and reliable operation of the plant. A tabulation of those SSCs which are covered by the QA Program is given in Table 1.

The QA criteria in 10CFR50, Appendix B, are oriented primarily toward engineering, manufacturing, and construction activities. Therefore, it is necessary to define, by specific QA documents, the manner in which the 10CFR50 Appendix B QA criteria are to be applied to the station operating activities. Such QA documents shall be prepared in accordance with the requirements specified in Sections 2.0 and 4.0 of this Policy Document.

The specifications, principles, and procedures which controlled the original procurement, fabrication, and construction have been carried over into the QA aspects of station operation to the greatest extent practicable. It is the intent of NPPD management to maintain, as a minimum, the quality level achieved in the original design and construction.

The CNS QA Program is implemented by the development and implementation of procedures, by management oversight, and by critical assessment and overview by Senior Level Management and independent groups. The QA Program and its requirements for

implementation are further described in station procedure 0-QA-01, "CNS Quality Assurance Program." The detailed methods of implementation shall be as provided for in written and approved procedures prepared in accordance with Section 4.0 of the QA Program. Activities and SSCs within the scope of the QA Program are subject to QA audit and surveillance activities as described in Nuclear Quality Procedures (NQPs) and Quality Assurance Plans (QAPs) (see Sections 2.18 and 4.0).

1.3 Definition of Terms

Key words and phrases used to characterize this QA Program are defined herein to establish a basis for uniform and consistent interpretation of the QA requirements. Definitions of these terms are based upon documents and standards issued by the American National Standards Institute (ANSI), NRC Safety and Regulatory Guides, professional societies involved in standards work, and on the basis of contemporary usage in the nuclear power industry; or shall be defined specifically to convey the intent of this particular program. Specific to the related ANSI Standard for this subject, the following commitment applies:

1. ANSI N45.2.10-1973 "Quality Assurance Terms and Definitions," and the associated Regulatory Guide 1.74 (withdrawn[1] 9/21/89), are applicable to the CNS QA Program, with the following clarification:

   (a) There may be instances where existing procedures contain definitions other than those provided by this standard. However, the intent and scope of the applicable ANSI N45.2 daughter standards shall be met.

To facilitate review and understanding of this Policy Document, the following basic terms are defined below along with appropriate QA Program requirements.

1.3.1 Audit

A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of the Quality Assurance Program have been developed, documented and effectively implemented in accordance with specified requirements. (Refer also to ANSI N45.2.12 , and ANSI N45.2.10-1973 definitions for "Audit.")

1.3.2 Audit Function

The conduct of audits, surveillances, or field observations. The audit function is performed to meet mandatory audit requirements and frequencies described in QAPs.

[1]Although this Regulatory Guide has been withdrawn, it still forms the basis upon which NPPD commitments were originally made and therefore remains a part of the QA Program.

1.3.3 Authentication

The act of authenticating; the giving of proof of authority, or certifying the quality of being valid; the act of attesting that the information contained in the record is legible, complete and an accurate representation of work performed.

The authentication process is accomplished by manually affixing a seal, signature, initial, or an electronic representation thereof (such as a ID/password combination, biometric identification or digital signature), or other acceptable method of proof as to a genuineness, validity, or reliability.

1.3.4 Class

For piping and valves, Class is determined by the applicable ASME Code. For seismic considerations, Class is determined by the USAR. (See also Essential, Non-Essential, and Quality Commercial Grade.)

1.3.5 Codes and Standards

Documents issued by qualified organizations which contain standardized requirements for particular equipment or applications (e.g., ASTM Material Standards, ASME Pressure Vessel Code, etc.). (Refer also to ANSI N45.2.10 for definition of "Standard.")

1.3.6 Conditions Adverse to Quality

Any conditions that could affect the ability of safety-related SSCs to function within design requirements or adversely alter performance characterisitcs. Corrective action process procedures shall provide criteria for determining the level of condition significance and respective resolution requirements, consistent with 10CFR50 Appendix B Criterion XVI.

1.3.7 Controlling Documents

All those drawings, specifications, procedures, instructions, manuals, data books, USAR, Technical Specifications, and the like, which have been approved and issued by the appropriate authorities, and which prescribe the conditions and limitations under which work is to be performed. (Refer also to ANSI N45.2.10 for definition of "Documentation.")

1.3.8 Data

Information stored in a computer readable format and processed by a software product.

1.3.9 Design Change

A design change (generic application) is considered to be any change to a component, equipment, or structure that changes the design criteria, configuration, or margin of safety

for a system or component which could impact nuclear safety, equipment and system integrity, or personnel safety.

1.3.10 Designated Representative

An individual or organization that is authorized by the purchaser to perform a specific function as identified/described in the procurement document .

1.3.11 Emergency Procedures (Operating, Maintenance, or Repair)

Those activities which must be performed without delay in order to:

(a) Avoid further degradation of off-normal conditions which, in themselves, do not constitute an accident, but which could lead to an accident if not corrected promptly;

(b) Reduce the consequences of an accident or hazardous condition which has already occurred;

(c) Implement an emergency plan;

(d) Prepare for an anticipated act of nature.

1.3.12 Essential

Essential functions, structures, systems, and components are equivalent to safety-related functions, structures, systems and components.

1.3.13 Functional Organization Chart

A pictorial description of the organization showing lines of supervision, responsibility, authority, and communication.

1.3.14 Inspection

A phase of quality control which by means of examination, observation or measurement determines the conformance of materials, supplies, components, parts, appurtenances, systems, processes or structures to predetermined quality requirements. This may include visual checks or by other techniques such as X-ray, ultrasonic or dye penetrant examination, etc.

1.3.15 Licensed Station

A nuclear station which is designed and constructed so as to meet requirements of applicable regulatory criteria and is thereby eligible to receive a construction permit and operating license from the NRC.

1.3.16 Lower Tier Procurement

Procurement by a supplier from a sub-supplier of items or services.

1.3.17 Maintenance Procedures

Written instructions which define a preplanned maintenance program and prescribe the methods, materials, and processes to be used to assure continuing quality and continuing operation of equipment within required performance characteristics.

1.3.18 Management

The Cooper Nuclear Station management comprised of the Vice President - Nuclear (VP - Nuclear) and the Site Vice President (Site VP), all Senior Managers, the Senior Manager of Quality Assurance, and all other Managers and Supervisors at Cooper Nuclear Station.

1.3.19 Maintenance, Repair, or Modification

Those maintenance, repair, or modification activities performed on nuclear safety-related structures, systems, or components which involve:

(a) Special craft or procedure qualifications to meet Code, Standard, or Regulatory requirements;

(b) Alterations which affect overall structural integrity, essential performance characteristics, or margins of safety in design for nuclear safety-related structures, systems, or components;

(c) Any permanent change to the facility that requires a Technical Specification change or NRC approval pursuant to 10CFR50.59(c)(2).

1.3.20 Minor Maintenance, Repair, or Modification

Those maintenance or repair activities which are within a journeyman craftsman's capability, and which:

(a) Are prescribed in the equipment manufacturer's instruction books as necessary or desirable for most effective operation;

(b) Are prescribed as part of a preplanned and approved routine or preventative maintenance program;

(c) Any permanent change to the facility judged significant enough to warrant documentation that does not require a change in Technical Specification or require NRC approval pursuant to 10CFR50.59(c)(2).

1.3.21 Nonessential

Any structures, equipment, and components which may be important to reactor operation, but are not required for preventing an accident which would endanger the public health and safety, and are not required for the mitigation of the consequences of these accidents. A Nonessential designated item shall not degrade the integrity of any item designated Essential.

1.3.22 Nuclear Quality Procedures (NQPs)

QA Division procedures that contain requirements and responsibilities for implementation of QA activities within NPPD.

1.3.23 Off-Normal Condition

A condition which results when an operating variable departs from its normal range. To restore normal operating conditions following such a perturbation, action is taken under off-normal procedures so as to correct the condition which, if not corrected, could degenerate into a condition requiring action under an emergency procedure.

1.3.24 Operating Procedures

Written instructions which define the normal method, means, and limits of all modes of nuclear station operation, including system(s) or process(es) within the station.

1.3.25 Operations Manual

The Operations Manual is composed of several volumes of policies and procedures which have been established for personnel working at or for CNS. The information presented in this manual is intended to help define personnel responsibilities and actions, during routine and abnormal station conditions. Furthermore, the manual is intended to help ensure the station will be managed and operated in a safe and dependable manner.

1.3.26 Purchaser

The organization responsible for issuance or administration or both of procurement documents. (Refer also to ANSI N45.2.10 for definition of "Purchaser".)

1.3.27 Quality Assurance

All those planned and systematic actions performed for the purpose of establishing a high level of confidence that:

(a) Work performed on the project conforms with the requirements of the applicable codes, standards, license stipulations, safety analyses, design drawings, specifications, procedures, and instructions;

(b) A structure, system, or component will perform satisfactorily in service;

(c) Appropriate documentation is maintained to show compliance with (a) and (b) above.

1.3.28 Quality Assurance Management

The Quality Assurance Division Management at CNS comprised of the VP - Nuclear, Senior Manager of QA and all managers and supervisors within the QA Division.

1.3.29 Quality Assurance Plans (QAPs)

QAPs provide guidance for QA oversight through the audit function by describing specific requirements associated with the scope and frequency of audits. QAPs define the specific work which is to be subjected to QA review, surveillance, and audit, and the manner in which such review, surveillance, and audit is to be implemented.

1.3.30 QA Program Procedures

Those documents inclusive of the QA Program Policy Document, QA Program Procedure, NQPs, QAPs, and station procedures (and associated data sheets), logs, etc., prepared and approved in accordance with the applicable regulatory requirements, including 10CFR50 Appendix B. These documents provide detailed requirements for a given functional area through application of the 18 criteria of 10CFR50 Appendix B except for QAPs which apply only to the audit function requirements and scope.

1.3.31 Quality Assurance Records

Those records which have been completed and furnish documentary evidence of the quality of items and/or activities affecting quality. (Refer to ANSI N45.2.9 - 1974, Appendix A) Control provisions shall be established for in-process records at the point at which they attest to completion of quality related activities.

1.3.32 Quality Commercial Grade

Procurement classification of a Commercial Grade Item (CGI) which meets the 10CFR21 definition of CGI and is intended for safety-related use, is procured from a QA approved source and is dedicated in accordance with approved station procedures.

1.3.33 Quality Control

Those activities which deal directly with the measurement, observation, or verification of physical characteristics of materials, components, or systems which provide a basis for controlling quality to within predetermined limits, or requirements, including adequate quantitative and/or qualitative acceptance criteria.

1.3.34 Quality Requirements

Those factors defining limits which must be met so that the product will reliably perform its intended function throughout its design life. They include, but are not limited to:

(a) Conditions important to proper material selection, manufacture, construction, and inspection;

(b) Substantiation that material or parts conform to all specification requirements;

(c) Testing to demonstrate adequacy of performance;

(d) Protection of finished parts to prevent deterioration;

(e) Conditions for operation, maintenance, and repair which enable continuing operation within prescribed margins of safety and within prescribed performance limits.

1.3.35 Regulatory Criteria

Those of NRC publications which define the conditions which must be met to obtain and hold an NRC Construction Permit, Operating License, and Licenses for individual operators.

1.3.36 Review

A deliberately critical examination. The term includes the routine Management monitoring of station operation and formal independent evaluations of certain contemplated actions and after-the-fact investigation of anomalies conducted by a duly constituted review and/or audit group.

1.3.37 Risk Significant

Those SSCs that are significant contributors to risk as determined by Probabalistic Risk Assessment/Individual Plant Evaluation (PRA/IPE) or other methods. Risk encompasses what can happen (scenario), its likelihood (probability), and its level of damage (consequences).

1.3.38 Safety-Related

Safety-related functions, structures, systems and components are those that are necessary to ensure:

(a) The integrity of the reactor coolant pressure boundary,

(b) The capability to shut down the reactor and maintain it in a safe shutdown condition, or

(c) the capability to prevent or mitigate the consequences or accidents that could result in potential offsite exposures comparable to the guideline exposure of 10CFR100.

1.3.39 Services

The performance by a supplier of activities such as design, fabrication, inspection, nondestructive examination, repairs, installation, or training.

1.3.40 Software

Software includes computer programs, procedures, operating system, application, rules, documentation and data.

1.3.41 Software Quality Assurance

The program that establishes controls for the development, procurement, operation, use, maintenance, and retirement of software commensurate with its importance to nuclear safety.

1.3.42 Station Records Storage Facility

The location established for the purpose of accumulating and storing all documents and records pertaining to quality-related activities throughout the life of the nuclear plant.

1.3.43 Supplier Evaluation

The total process by which a supplier's QA program is evaluated for acceptability for the supply of safety-related and selected commercial-grade items to CNS. An evaluation must be completed in order to approve, or reapprove a supplier's listing on the CNS Approved Suppliers List.

1.3.44 Surveillance

Surveillance is the QA Audit function of formal and informal observations to determine that work is being performed in accordance with the requirements of the controlling documents and drawings (see also Audit).

1.3.45 Surveillance Testing

Periodic testing of SSCs related to nuclear safety, for the purpose of verifying that such safety-related SSCs continue to function or are in a state of readiness to perform their safety functions.

1.3.46 Testing

The determination or verification of the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operating conditions.

1.3.47 Traceability

The ability to identify a particular component or material and to discover its entire history, back through the written records of its material formulation, manufacturer, inspection, installation, test, operation, maintenance, repair, and replacement.

1.3.48 Witness

Formal observation by a knowledgeable person of a particular, prescheduled event during manufacturing, inspection, installation, testing, operation, maintenance, or repair. Witnessing provides direct observation and evaluation of an event, independent of the group performing the particular operation.

2.0 SUMMARY DESCRIPTION

This section defines the NPPD commitments for compliance to the 18 criteria of 10CFR50 Appendix B as applied to safety-related SSCs associated with CNS. Portions of these criteria are selectively applied to non safety-related SSCs as determined by risk significance or conditions of the license. This section also contains provisions identifying NPPD commitments to selected ANSI standards, associated NRC Regulatory Guides, and other pertinent codes, standards, requirements, and practices. The organizational structure applicable to the QA Program is defined including a description of functional responsibilities.

2.1 10CFR50, Appendix B, Criterion I: Organization

NPPD is solely responsible for the operation of CNS and will fulfill the objectives set forth in the QA Program through its own organization and by contract with qualified contractors and consultants.

The overall QA Program shall be implemented in accordance with three levels of responsibility:

First Level - Work Performance and Quality Control,

Second Level - Management/Supervision Oversight,

Third Level - Quality Assurance Audit/Surveillance.

Table 2 defines these three levels of QA as they are to be implemented for station operation. The three level concept is applicable to all safety-related activities conducted at CNS and select risk significant activities or those activities performed to meet conditions of the license.

It is intended that clearly separate lines of responsibility be maintained between those responsible for the operation of CNS and those responsible for QA oversight to verify that all quality and licensing requirements are consistently being met. QA responsibilities will vary depending upon the type of activity involved.

The following discussion highlights key management positions and/or functions applicable to the QA Program. A more detailed functional organization chart of CNS Managers is located in the CNS USAR.

2.1.1 President and Chief Executive Officer (CEO)

The President and Chief Executive Officer (CEO) represents the highest level of management responsible for establishment of QA policies, goals, and objectives. The responsibility and authority as the Chief Nuclear Officer has been delegated to the VP Nuclear from the President /CEO. This authority includes the right to direct, enforce, and perform any action required to ensure all activities conducted at CNS are in compliance with 10CFR50, Appendix B.

2.1.2 Vice President - Nuclear (VP - Nuclear)

The VP - Nuclear, reporting to the President/CEO, is the responsible executive officer for all CNS QA related activities. Responsibility includes the implementation of QA activities governing those SSCs that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. The VP - Nuclear reserves the authority to conduct, or order the auditing or monitoring of any operations activity, at any time, to ascertain the effectiveness of the overall QA Program and to determine compliance with all aspects of the QA Program.

2.1.3 Site Vice President (Site VP)

The Site VP and his staff, reporting to the VP - Nuclear, shall be responsible and have the authority for assuring compliance with QA activities as defined by the QA Program and other approved QA Program documents. Some of these responsibilities are delegated to CNS management personnel and include QC and Inspection functions as defined in Table 2. The actual functions to be performed shall be defined in lower tier documents such as NQPs, QAPs, station procedures, etc. Directly reporting to the Site VP are the Plant Manager and Senior Level Managers.

2.1.4 QA Division

The QA Division, reporting to the VP - Nuclear, shall have complete organizational and functional independence to perform all QA oversight functions.

The QA Division shall periodically, randomly, and situationally review and comment on the CNS Operations Manual procedures to assure that necessary quality requirements are included. Differences of opinion on QA comments shall be resolved as indicated in Section 2.1.4.2 of this QA Program.

Written reports of all QA activities shall be appropriately included in the station records storage facility. Corrective action on deficiencies shall include resolution of the specific deficiency and verification that corrective action has been implemented to prevent occurrence of similar deficiencies in the future. A report of QA activities shall annually be submitted by the Senior Manager of QA to the VP - Nuclear.

2.1.4.1 Senior Manager of Quality Assurance

The Senior Manager of QA, reporting to the VP - Nuclear, shall have the responsibility and authority for administrating and maintaining the QA Program in accordance with 10CFR50, Appendix B. Inherent in this responsibility is the authority to accept or reject any or all work, materials, or equipment associated with CNS. The Senior Manager of QA shall direct the preparation of plans and procedures for defining the QA functions associated with CNS to ensure that such functions are conducted in accordance with the CNS Operating License, including the Technical Specifications. The Senior Manager of QA shall also approve all plans and procedures for defining and auditing the safety-related activities at CNS and NPPD's General Office. The actual audit functions to be performed are defined more completely by the body of NQPs and QAPs described in Section 4.0 of this Policy Document. The Senior Manager of QA shall also have

administrative responsibility for the ongoing development and implementation of the supplier evaluation program, which includes the appropriate reviews of procurement documents and audit/surveillance evaluations of suppliers of nuclear safety-related equipment, materials, spare parts and services.

The Senior Manager of QA and staff shall have the requisite organizational freedom and access within the NPPD organizations that support and operate CNS, in order to institute the necessary QA requirements, identify problems, and pursue timely corrective action.

The Senior Manager of QA is responsible for oversight of CNS QA activities to the extent necessary for assuring compliance with the QA Program. The effectiveness of the QA Program shall be reviewed periodically with the VP - Nuclear. The Senior Manager of QA is also afforded a direct line of communication with the President/CEO. The Senior Manager of QA shall serve as a member of the SRAB and provide additional QA personnel to participate in SRAB activities when requested.

As described in Table 2, the Senior Manager of QA shall have responsibility for accomplishment of third level QA audits and surveillances and shall seek assistance or expertise when necessary to effectively complete such audits.

A QA Manager (depending on availability) shall function as the Senior Manager of QA during his absence, unless provided otherwise in writing.

2.1.4.2 Quality Assurance Management

QA Management, under the direction of the Senior Manager of QA, shall have the responsibility and authority for implementing and maintaining the QA Program, as described herein. They shall routinely monitor open QA issues.

They shall have the responsibility and authority to perform, direct, implement, or coordinate Audit and Surveillance Functions for activities and programs within NPPD's nuclear power organizations. QA review of the nuclear design and engineering functions, including configuration management, shall be included in such programs. These activities and programs shall determine if conformance with the CNS QA Program, and applicable federal regulations defined therein, are being maintained.

QA Management shall advise and assist Senior Management and their staff in all matters which affect QA and Quality Control (QC) at CNS.

QA Management shall ensure that training programs are provided for QA Division personnel to enable them to effectively execute and monitor the QA Program.

A member of QA Management, or designee, shall serve as a non-voting member of the Station Operations Review Committee (SORC).

QA Management and staff will observe operations, maintenance, in-service inspection, special processes, repair, or modifications, and other safety-related activities covered by the QA Program, and recommend that work stop when such activities, in their opinion, do not comply with approved controlling documents. The Site VP, or designee, is

responsible to act on that recommendation and actually stop work unless it is determined such stoppage would result in a violation of Technical Specifications or other approved documents governing station operation, or in cases of overriding considerations regarding personnel or nuclear safety.

QA Management will provide for a coordination function for QC activities at CNS. This includes development and maintenance of program procedures, reviews of inspector certifications and performance, review and acceptance of control methods, and the establishment of a training program. The function will also provide the communication path for the resolution of QC Inspector concerns.

QA Management has authority for establishing, implementing and maintaining the program for evaluating suppliers for safety-related equipment, materials, spare parts, and services, and for auditing the QA/QC activities of such suppliers.

QA Management shall have the responsibility and authority for the control, administration, distribution, maintenance, and coordination of revisions to the QA Program, including implementing documents.

(a) Resolution of Disagreements

Disagreements or differences of opinion on QA matters are expected to be documented and jointly resolved by QA and line personnel. Where such resolution is not achieved within a reasonable period of time, unresolved differences shall be promptly reported to the appropriate level of QA Management for joint resolution with line management, including the Senior Manager of Quality Assurance and Senior Management personnel, as appropriate.

2.1.4.3 QA Division Staff

QA personnel, as well as personnel from other divisions who may be requested to assist in performing QA activities under the direction of the Senior Manager of QA, shall have sufficient authority and organizational freedom to:

(a) Identify quality problems;

(b) Initiate and recommend solutions for conditions adverse to quality;

(c) Verify implementation of solutions.

The QA Division, under the direction of the Senior Manager of QA, shall have the responsibility and authority for implementation and ongoing development of the QA Program. It shall also be the responsibility of the QA Division to monitor the interface between the various NPPD and CNS Divisions in order to evaluate the effectiveness of management in implementing inter-divisional activities affecting quality.

2.1.5 Management

CNS Management is responsible for assessment of the effectiveness of implementation of program elements within their assigned areas, and for timely and effective resolution of conditions adverse to quality. Management shall assure that activities under their control are conducted in accordance with the CNS QA Program. This includes, but is not limited to, timely response to QA Division Audit and Surveillance findings and implementation of appropriate corrective or preventive actions. For those aspects of fuel management covered by the QA Program, Management responsible for the fuel and reactor engineering function shall be responsible to furnish technical assistance as required to the Plant Manager and the QA Division Staff. Such assistance shall not replace or supersede formal audits. NPPD Management shall be responsible to maintain focus on nuclear safety.

2.1.5.1 Plant Manager

The Plant Manager, who reports to the Site VP, is assigned responsibility for plant operations, maintenance, radiological, and work control department functions.

2.1.5.2 Senior Level Managers

Senior Managers provide management oversight through assignment to various functions and key areas of support to plant operations. Senior Level Managers report to the Site VP. Functions assigned to Senior Level Managers include engineering (and plant modification activities), fuels and reactor engineering, licensing and regulatory affairs, risk management, materials management, security, emergency preparedness, training, corrective action program, administrative support, and various other business functions. Senior Managers shall regularly review the areas for which they are responsible, keeping abreast of significant quality activities.

2.1.5.3 Logistics Manager

The NPPD Logistics Manager, reporting to the Vice President - Corporate Support Services (who reports to the President and CEO), has responsibility and authority for administrating and maintaining procurement functions and activities.

2.1.6 CNS Personnel

The operational duties and responsibilities of the CNS personnel, under the direction of the Site VP and his staff, are described in the CNS Operations Manual. Sufficient numbers of licensed and senior licensed operating personnel will be available to assure proper operation of the station. Station personnel are responsible for assuring that the station is tested, operated, maintained, and modified in accordance with approved plans and procedures. In addition, station personnel are assigned QC inspection functions.

Occasionally, assistance in performing QA Division functions will be required from trained technical, engineering, or other station personnel who are not members of the QA Division. During the time personnel are performing QA Division functions, they shall be responsible to the QA Division to maintain the organizational independence required by the QA Program.

2.1.7 Safety Review and Audit Board (SRAB)

The SRAB has been established to provide independent review and audit of designated activities. The responsibility and authority over the SRAB has been delegated to the VP - Nuclear.

2.1.7.1 SRAB Membership

Membership is seven (7), to include:

(a) Chairman

(b) Vice-Chairman

(c) Five Members

(d) Consultants (as required)

The Board members shall have the collective capability required to review problems in the following areas:

(a) nuclear power plant operations,

(b) nuclear engineering,

(c) chemistry and radiochemistry,

(d) metallurgy,

(e) instrumentation and control,

(f) radiological safety,

(g) mechanical and electrical engineering,

(h) quality assurance practices,

(i) and other appropriate fields associated with the unique characteristics of the nuclear power plant involved.

When the nature of a particular problem dictates, special consultants will be utilized.

Alternate members shall be appointed in writing by the Chairman to serve on a temporary basis. No more than two alternates shall serve on the Board at any one time.

Meeting frequency is semiannual, and as required on call of the Chairman.

Quorum is five (5), including Chairman or Vice Chairman, plus four members, including alternates. No more than a minority of the quorum shall be from groups holding line responsibility for the operation of the plant.

2.1.7.2 SRAB Responsibilities

The following subjects shall be reported to, and reviewed by, the SRAB.

(a) The evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provisions of 10CFR50.59, to verify that such actions did not require NRC approval pursuant to 10CFR50.59(c)(2).

(b) Proposed changes to procedures, equipment or systems which require NRC approval pursuant to 10CFR50.59(c)(2).

(c) Proposed tests or experiments which require NRC approval pursuant to 10CFR50.59(c)(2).

(d) Proposed changes to Technical Specifications or the CNS Operating License.

(e) Violations of applicable codes, regulations, orders, Technical Specifications, license requirements, or internal procedures or instructions having nuclear safety significance.

(f) Significant operating abnormalities or deviations from normal and expected performance of plant equipment that could affect nuclear safety.

(g) All reportable events specified in 10CFR50.73.

(h) Any indication of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.

(i) Minutes of meetings of the SORC.

(j) Disagreement between the recommendations of the SORC and the SORC Chairman.

(k) Review of events covered under e, f, g, and h above shall include reporting the results of investigations to appropriate members of management and recommendations to prevent or reduce the probability of recurrence.

The SRAB shall attempt to detect trends that may not be apparent to a day-to-day observer.

The SRAB shall report and be advisory to the VP - Nuclear on the subjects of review specified previously, audit results, and on audit responsibilities specified in Section 2.18 of this Policy Document.

Minutes shall be recorded for all meetings of the SRAB and shall identify all documentary material reviewed. Copies of the minutes shall be forwarded within one month of the meeting to the VP - Nuclear, Site VP, the Plant Manager, and such others as the Chairman may designate.

2.1.8 Station Operations Review Committee (SORC)

The SORC has been established to advise the Plant Manager in all matters regarding operational safety.

2.1.8.1 SORC Membership

The SORC shall have a minimum of eight (8) voting members, to include:

Chairman: Plant Manager or alternate

Seven (7) members from the following disciplines:

(a) Operations

(b) Radiological (Chemistry/Health Physics)

(c) Maintenance

(d) Engineering

(e) Reactor Engineering

(f) Instrumentation and Control

The members, according to individual job title, shall meet the requirements as described in Sections 4.2, 4.3.1, or 4.4 of ANSI N-18.1 1971, "Selection and Training of Nuclear Power Plant Personnel," or Regulatory Guide 1.8, revision 2, "Qualification and Training of Personnel for Nuclear Power Plants", as stipulated in Section 2.2 of this Policy Document.

Non-voting members may also serve on SORC to broaden its expertise in other areas (e.g., Licensing, Quality Assurance).

Alternate members shall be appointed in writing by the SORC Chairman to serve on a temporary basis. No more than two (2) alternates shall participate as voting members in SORC at any one time.

Meeting frequency is monthly, and as required on call of the Chairman.

Quorum is the SORC Chairman plus four (4) voting members.

2.1.8.2 SORC Responsibilities

SORC review responsibilities include:

(a) Review of all proposed normal, abnormal, maintenance, and emergency operating procedures specified below, and proposed changes thereto, and any other proposed procedures, or changes thereto, determined by any member to affect nuclear safety:

(1) The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978;

(2) The emergency operating procedures required to implement the requirements of NUREG-0737 and NUREG-0737, Supplement 1, as stated in Generic Letter 82-33;

(3) The procedures that implement the QA Program for radioactive effluent and radiological environmental monitoring;

(4) The Fire Protection Program implementation procedures;

(5) Implementing procedures of the Security Safeguards Plan and Emergency Plan;

(6) Administrative procedures for shift overtime;

(7) The procedures that implement all programs specified in Technical Specification 5.5, "Programs and Manuals."

(b) Review of proposed changes in procedures, SSCs or facilities, or tests or experiments involving a change in the Technical Specifications or any other changes to the Technical Specifications or Operating License.

(c) Review of proposed tests and experiments and their results, where:

- a written evaluation pursuant to 10CFR50.59(d)(1) is performed, or

- where nuclear safety could be adversely affected.

The SORC shall submit tests or experiments which may require NRC approval pursuant to 10CFR50.59(c)(2) to the SRAB for review.

(d) Review of proposed changes or modifications to SSCs or facilities:

- as discussed in the USAR, or

- where a written evaluation pursuant to 10CFR50.59(d)(1) is performed, or

- where nuclear safety could be adversely affected, or

- which require NRC approval pursuant to 10CFR50.59(c)(2).

The SORC shall submit changes to equipment, systems, or facilities having safety significance to the SRAB for review.

(e) Review of station operation to detect potential nuclear safety hazards.

(f) Investigation of violations of Technical Specifications. This includes reporting evaluations and recommendations to prevent recurrence to the VP - Nuclear and the Chairman of the SRAB.

(g) Performance of special reviews and investigations and rendering reports thereon as requested by the Chairman of the SRAB.

(h) Review of reportable events specified in 10CFR50.73 and submission of the results of this review to the VP - Nuclear and the Chairman of the SRAB.

(i) Review of drills on emergency procedures (including plant evacuation) and adequacy of communication with off site groups.

(j) Review of temporary changes to procedures within one month of the change. Temporary changes that do not change the intent of the original procedure and are approved by two members of the operating staff holding Senior Reactor Operator (SRO) licenses

(k) Periodic review of procedures specified in Section 2.1.8.2.a of this QA Program as set forth in administrative procedures.

The SORC shall be advisory to the Plant Manager.

The SORC shall recommend to the SORC Chairman approval or disapproval of proposals under the review responsibilities. In case of disagreement between the recommendations of the SORC and the Chairman, the course determined by the Chairman to be more conservative will be followed. A written summary of the disagreement will be sent to the VP - Nuclear, Site VP, and the Chairman of the SRAB.

The SORC shall report to the Chairman of the SRAB on all reviews and investigations listed under review responsibilities.

The SORC shall make determinations regarding whether or not proposals considered by the Committee require NRC approval pursuant to 10CFR50.59(c)(2). This determination shall be subject to review by the SRAB.

Minutes for all meetings of the SORC shall be recorded and shall include identification of all documentary material reviewed. Copies of the minutes shall be forwarded to the VP - Nuclear and the Chairman of the SRAB within one month of the meeting.

Written procedures for Committee operation shall be prepared and maintained describing the method of submission and content of presentations to the committee, provisions for use of subcommittees, review and approval by members of written Committee evaluations and recommendations, dissemination of minutes, and such other matters as may be appropriate.

2.1.9 Outside Contractors

It may occasionally be necessary to obtain assistance from outside suppliers, contractors, subcontractors and consultants (hereafter referred to as "contractors"). At all times these contractors will work under the direction of the NPPD organization having primary responsibility for the particular work being performed. In those instances in which personnel are merely furnished to augment the normal CNS staff for particular activities, such contractors shall be required to perform their work in accordance with the CNS QA Program and other appropriate station procedures and instructions. In those instances in which contractors are assigned primary responsibility for a particular activity, such contractors shall be required to maintain a QA and QC Program and organization appropriate to the work to be performed.

All contractors performing work classified as essential shall be maintained on the appropriate section of the CNS Approved Suppliers List. Selection of contractors shall require the active participation of the QA Division for evaluation and approval of the contractor's QA Program.

In every instance in which contractors have responsibility for work at CNS on safety-related nuclear systems, such contractors shall be contractually required to work to procedures approved by the CNS SORC. Recognized standards or existing proprietary procedures may be used, however, they must be specifically invoked in writing and clearly identified as to their applicability to the CNS work. Any contractor performing work at CNS under its own QA program shall be contractually required to prepare, prior to performing the work, a Project QA Plan specific to the work to be performed at CNS.

Prior to performing work at CNS which affects safety-related equipment, contractors and appropriate representatives from NPPD shall jointly develop and enforce written agreements and/or procedures which clearly define the limits of the work, interface between contractor and station personnel, status and custody tagging procedures, contractor personnel dosimetry, and any other aspects which bear on station or personnel security and safety. Such agreements shall be reviewed by the QA Division to ensure compliance with applicable QA Program requirements.

Contractors performing safety-related work under the CNS QA Program shall be contractually required to perform the work under NPPD supervision and in accordance with the CNS QA Program. NPPD personnel responsible for such work shall assure that contractor personnel are qualified to do the work and have been provided formal instruction in QA. Any calibrated tools and equipment provided by the contractor shall be recalibrated at CNS or by an NPPD-approved source prior to use.

If any portion of work on safety-related nuclear systems is to be subcontracted, the prime contractor shall impose the appropriate QA requirements on the subcontractor. CNS QA Division personnel shall have direct access, to and communication with, the contractor's personnel at all levels, both at their home office and in the field.

At all times, when contractors are obtained to assist in the execution of this QA Program, the responsibility for effectiveness of these support organization's activities will remain with NPPD.

2.2 10CFR50, Appendix B, Criterion II: Quality Assurance Program

The QA Program applies to all activities which affect nuclear safety. This Policy Document identifies the industry Standards and Regulatory Guidance documents which are applicable to the implementation of the QA Program for CNS. Specific exceptions to criteria contained within the referenced Standards are herein described in following sections, as applicable. Specific implementing criteria for the QA Program are contained in lower level implementing procedures.

Specific to the related ANSI Standards for this criterion, the following commitments apply:

1. ANSI N18.1-1971 "Selection and Training of Nuclear Power Plant Personnel," shall provide direction for selecting and training of personnel, with the following clarification:

   (a) Regarding the qualifications of the specific positions of shift supervisor, senior operator, licensed operator, shift technical advisor, and radiation protection manager, CNS shall comply with the provisions of Regulatory Guide 1.8, Revision 2, "Qualification and Training of Personnel for Nuclear Power Plants."

2. ANSI N18.7-1972 "American National Standard for Administrative Controls for Nuclear Power Plants," and the associated Regulatory Guide 1.33 (November 1972) apply to the CNS QA Program with the same exceptions as those taken in other sections of this Policy Document to ANSI N45.2.12-1977, "Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants." Specific to the performance of audits, Section 4.5 of ANSI N18.7-1976 applies (see Section 2.18 of this QA Program). Audit frequencies shall be in accordance with Regulatory Guide 1.33, Revision 2. Additionally, to meet the standard of performing audits of all safety-related functions within a period of two (2) years, the QA Division will perform an audit, surveillance, or field observation.

3. ANSI N45.2-1977 "Quality Assurance Program Requirements for Nuclear Facilities," and associated Regulatory Guides 1.28 (June 1972) and 1.33 (November 1972), shall apply to the CNS QA Program, with the following exception:

   (a) Where Section 11, "Inspection," identifies the reporting relationship between the inspector and the "immediate supervisors who are responsible for the work being inspected," the CNS QC Program only requires that the individual performing the verification function shall not perform or directly supervise the work being inspected.

The program shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

All NPPD personnel, as well as non-NPPD personnel, who work independently under this QA Program, shall receive formal instruction in Quality Assurance, including:

(a) Basic principles of quality assurance,

(b) 10CFR50 Appendix B,

(c) The contents of this Policy Document

(d) QA documents, as applicable.

Table 1 identifies the structures, systems, and major components associated with CNS covered by this program. Table 1 is not intended to be all inclusive. The Operations, Support and Engineering Divisions, with the assistance of the QA Division, will identify essential SSCs to be included within the scope of the QA Program. The QA Program is designed to provide control over all activities affecting quality of essential items to a degree consistent with their safety-related importance. These activities will be governed by approved plans and instructions and these documents shall be followed under controlled conditions.

In addition to essential SSCs, applicable portions of the QA Program shall be applied to selected nonessential SSCs important to station reliability and performance. Specific application will be identified in station procedures.

2.3 10CFR50, Appendix B, Criterion III: Design Control

Implementing procedures outline the method for identifying, controlling, and implementing design changes at CNS. The procedures provide the mechanism for correctly translating the design changes and regulatory requirements into specifications, drawings, procedures, and instructions. They also establish the method of reviews, interface requirements (with original design organization, if required), approvals, and the organizations delegated the authority to implement the design change.

Design control measures shall include the review for suitability of application of items that are essential to the safety-related function of the system involved. A necessary part of this review concerns the safety classification of items to be procured. In those instances where the normal methods of Section 2.7 cannot be applied, and it is necessary to purchase "commercial-grade" off-the-shelf items for use in essential applications, verification will be performed to ensure that the part utilized is functionally acceptable for the essential application. This verification may include dedication upon receipt, analysis, or other definitive method.

The QA Division will periodically review design changes during any phase of development or implementation. Final acceptance of the design change will require an independent verification or check of the design adequacy such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.

Specific to the related ANSI Standards for this criterion, the following commitments apply:

1. ANSI N45.2.11-1974 "Quality Assurance Requirements for the Design of Nuclear Power Plants," and the associated Regulatory Guide 1.64 (withdrawn[1] 7/31/91) shall be applied to design activities involving safety-related modification work and the revision or development of plant design documents occurring during the operational phase of CNS. However, where codes, standards, or design requirements are referenced, or are incorporated into the standard by reference, which are in conflict with original design commitments as set forth in the USAR, the USAR commitments shall govern. Later revisions of applicable codes and standards may be specifically invoked by the design requirements where deemed appropriate, consistent with the overall commitment to maintain the plant in an "equal to or better than" original condition.

2. ANSI N45.2.4-1972 "Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Stations," and its associated Regulatory Guide 1.30, Revision 0, shall be applicable to the CNS QA Program for safety-related modification work, with the following exceptions/clarifications:

[1]Although this Regulatory Guide has been withdrawn, it still forms the basis upon which NPPD commitments were originally made and therefore remains a part of the QA Program.

(a) The definition of Class I and Class IE electrical equipment set forth by this standard does not conform to the equipment categories of CNS. Electrical items upon which the QA Program is based are included in Table 1 of this Policy Document and the CNS "Q" List (a safety classification method and information list). The scope and applicability of this standard shall necessarily be limited to these defined areas.

(b) Appropriate requirements for installation, inspection, and tests are defined in job specifications and work instructions developed as a part of the modification work package. It is not intended that separate procedures be established which specifically address the various areas of this standard. During the development of work packages, consideration will be given to the areas outlined in this section, as appropriate.

(c) The requirements for installation, inspections, verifications, and tests shall be included in the work instructions. In the development of these instructions, consideration will be given to the guidance provided by Sections 4.0, 5.0, and 6.0 of this Policy Document, and appropriate requirements will be incorporated into the instructions. It is not intended that separate procedures be established to specifically address all of the areas referenced.

(d) Application of the guidance provided by the additional codes and standards listed in Appendix B will be considered to the extent that such codes and standards provide useful and practical guidance for the work being performed. Commitments to the guidance of N45.2.4 shall not include commitments to the guidance of referenced standards, unless otherwise noted.

3. ANSI N45.2.5-1974 "Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants," and its associated Regulatory Guide 1.94, Revision 1, shall be applicable to the CNS Operational QA Program for safety-related modification work, with the following exceptions/ clarifications:

NOTE

With respect to structural concrete, acceptability shall be documented in accordance with NPPD's Dedication Procedures, which will be verified by independent QA audit.

(a) Appropriate requirements for installation, inspection, and tests will be set forth by job specifications and work instructions developed as a part of the modification work package. It is not intended that separate procedures be established which specifically address the various areas of ANSI N45.2.5-1974. However, in the development of the work package, consideration will be given to the areas outlined in Section 2.2 of the ANSI standard, as appropriate.

(b) The requirements of control and calibration of measuring and test equipment set forth by this ANSI standard shall be applied to all measuring and test equipment used by NPPD or their agents, test laboratories, and contractors. Such requirements, however, will not be imposed on commercial batch plant facilities. Instrumentation at commercial batch plant facilities will be evaluated by appropriate NPPD personnel to determine that sufficient accuracy can be obtained.

(c) For small quantities of concrete involved in modification work, all concrete must be purchased from commercial concrete batch plants. For these small quantities of concrete, it is unreasonable to expect commercial facilities to shut down normal operations to provide certified aggregate, cement, admixtures, fly ash, water, etc. In this respect the qualification tests required by Table A of the ANSI Standard for aggregate; cement, admixtures, fly ash, and pozzolans; water and ice will not be required. Appropriate evaluations will be made to determine that good quality and generally-acceptable materials are used. NPPD evaluation, coupled with slump tests, air entrainment tests, and concrete cylinder strengths, will provide adequate control and qualification of the concrete.

(d) Design mixes consistent with, or equivalent to, original requirements will be specified and the results of the cylinder tests will be evaluated by NPPD based on the acceptance criteria associated with the original design mix requirements.

(e) The inspection requirements of Section 4.2 of the ANSI standard will not generally be performed as the small quantities of concrete involved in modification work will no doubt be mixed using materials already in the batch plant bins. Control of storage of materials would not be practicable.

(f) If available, appropriate certifications shall be obtained from the concrete supplier which verify the adequacy of truck mixers per the requirements of American Concrete Institute (ACI) -304, American Society for Testing and Materials (ASTM) C-94. Where certifications are not available, two concrete test cylinders representing the first and last one-third of truck mixer contents shall be taken for evaluation of the mixer truck, over and above the normal concrete cylinders taken to evaluate the in-place concrete. The concrete batch plant facility shall be inspected by NPPD and the CNS QA Staff to assure that reasonable controls are being exercised with reference to the inspection guidelines set forth by Section 4.3 (1) and (2) of this standard.

(g) Inspection of fills and earthwork will meet the general requirements set forth. The extent to which individual inspection requirements are met will depend upon the nature and scope of the work to be performed.

(h) Except for normal batch qualification tests (slump, air content, temperature, and compressive strength) and initial reinforcing steel certifications, the in-process tests required by Table B of ANSI N45.2.5-1974 are generally

applicable to the periodic control which must be exercised with reference to long-term construction type programs. The in-process test requirement of Table B of the ANSI Standard are not considered applicable to short-term modification work as would be required by QA Program at CNS.

4. ANSI N45.2.8-1975 "Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants," shall be applicable to the CNS QA Program for safety-related modification work, with the following clarification:

   (a) Where specific design requirements included in this standard or referenced codes and standards are in conflict with original design requirements set forth in the USAR and other appropriate design documents, the original design requirements shall govern.

2.4 10CFR50, Appendix B, Criterion IV: Procurement Document Control

NPPD procedures are required to define the applicable requirements, design basis methods, and procedures for procurement of spare parts, materials, equipment, and services for essential nuclear systems. These instructions and procedures shall also include provisions for assuring that the necessary quality requirements are incorporated directly into the procurement documents. These instructions and procedures shall also include provisions for assuring that the necessary records are specified and provided to NPPD by the supplier.

The basic principles and practices included in these procedures are expected to be applicable to any purchasing activity necessary for operation of the station; however, additional special controls may be necessary for major modification or repair activities.

Procedures provide for independent QA review and approval of suppliers, and QA Audit of contractor and supplier activities. The QA Division will periodically review procurement documents for essential and quality commercial grade purchases.

Revisions issued to any procurement document will be subjected to the same review and approval as the original order.

All procurement documents issued to suppliers of safety-related items or services require that the supplier implement a QA Program that meets the intent of 10CFR50, Appendix B (with the exception of those suppliers performing all work at CNS or in the NPPD Columbus General Offices under NPPD's QA Program). The QA programs submitted by the suppliers will be evaluated by the NPPD QA Division to ascertain that they meet the criteria established in 10CFR50, Appendix B. All safety-related suppliers shall appear on the applicable section of the CNS Approved Suppliers List.

To the maximum extent practicable, the as-built drawings and specifications for Cooper Nuclear Station will be used in procurement of spare parts, material, and replacement parts.

Where necessary, because of design modifications, or where it is necessary or desirable to upgrade quality in replacement parts or material, necessary modifications will be made to drawings and specifications to incorporate requirements for currently appropriate quality level. These modifications or upgrading of replacement parts will be accomplished in accordance with approved instructions, procedures, and drawings. These documents will be subject to required reviews before being implemented.

Specific to the ANSI Standard related to this criterion, the following commitment applies:

1. ANSI N45.2.13-1976 "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants" and it's associated

Regulatory Guide 1.123, Revision 1 (withdrawn[2] 7/31/91), is applicable to the CNS QA Program, with the following clarification:

(a) Equipment and components purchased during the design and construction phase were not purchased on the basis of present-day standards, particularly in reference to supplier approval and supplier QA programs. In this respect, replacement parts and spare parts for existing equipment are often limited to sole-source suppliers. Such replacement parts or spare parts are purchased to appropriate quality standards, and are verified by the NPPD QA Division to maintain an "equal to or better than" condition. However, it is not considered practicable to backfit the requirements of this standard to all such suppliers.

[2]Although this Regulatory Guide has been withdrawn, it still forms the basis upon which NPPD commitments were originally made and therefore remains a part of the QA Program.

2.5 10CFR50, Appendix B, Criterion V: Instructions, Procedures, and Drawings

QA activities, activities affecting quality, and other activities which have nuclear safety significance (e.g., nuclear fuel purchase, design, manufacture, inspection, shipping, receipt, installation, and operation; station security; nuclear fuel accountability and safeguard, etc.) shall be prescribed and accomplished in accordance with documented instructions, drawings and procedures as appropriate. Relevant regulatory criteria, codes and standards, and design bases for safety-related systems shall be incorporated into procedures and instructions (such as test, operating, modifications, maintenance, etc.) as appropriate. These instructions will be sufficiently detailed and explicit so that any supervisor, inspector, or auditor can, by observation, determine whether or not activities are being satisfactorily accomplished and documented. These documents shall include the qualitative and quantitative acceptance criteria necessary to assure satisfactory completion of the test procedure. The acceptance criteria shall, where appropriate, require post installation testing prior to returning the component or system to service. Repair maintenance activities on essential systems shall be performed in accordance with approved maintenance and repair processes. The QA Division shall periodically review procedures governing the conduct of special processes, special tests, and special maintenance, and the implementation and results of such activities. Procedures which implement the QA Program shall also be reviewed periodically to assure that the requirements of the program are being met.

Temporary changes to procedures which do not change the intent of the original procedure may be made, provided such changes are approved by two members of the operating staff holding Senior Reactor Operator (SRO) licenses. Such changes shall be documented and subsequently reviewed by the SORC within one month.

Document hierarchy is defined below as four levels. Level IV documents are not within the scope of the QA Program and therefore are not subject to the same requirements as documents defined in Levels I through III.

Level I: License Basis Documents

- Applicable sections of 10CFR
- Exemptions or NRC Orders
- Technical Specifications, Operating License and License Conditions
- QA Policy Document, Emergency Plan, and Security Safeguards Plan
- USAR
- Technical Requirements Manual (TRM)
- Offsite Dose Assessment Manual (ODAM)
- Commitments in docketed NRC Correspondence (such as responses to NRC bulletins, generic letters, enforcement actions as well as commitments documented in NRC Safety Evaluation Reports, or licensee event reports)

Level II: Design Specifications and Drawings

Level III: Procedures

- Administrative Procedures
- Operations Procedures
- Maintenance/Work Control Procedures
- NQPs
- Departmental Procedures and Procedures Found in the Operations Manual

Level IV: Policies and Guidelines (e.g., Corporate Procedures, Human Resources, and other non-nuclear documents)

2.6 10CFR50, Appendix B, Criterion VI: Document Control

Administrative procedures shall be established to control the identification, indexing, and distribution of quality-related records and documents. They shall be reviewed and approved by authorized personnel and shall be distributed to and used at the site of the activity. These procedures shall also ensure that changes to quality-related records and documents receive the same level of review and approval as the original document.

The overall objectives of NPPD document control are to:

(a) Identify those records and documents which are used to control, maintain, modify, or document quality-related activities in support of CNS.

(b) Establish an index of quality-related records to enable personnel involved in safety-related activities to determine the proper documents to be used in the activity.

(C) Establish measures to control distribution and revisions.

NPPD Management is responsible for establishing effective interfaces and document control procedures.

2.7 10CFR50, Appendix B, Criterion VII: Control of Purchased Material, Equipment, and Services

NPPD receiving inspection instructions provide for determining that all materials, equipment, and services purchased directly or through a contractor, supplier, or subcontractor meet the requirements specified on the original procurement specifications. The completed receipt inspection report shall become part of the purchase order package. Procurement documents shall be available at the receiving area to identify the receiving inspections required.

NQPs provide for evaluation of a supplier's QA program to determine effectiveness and compliance to the applicable 10CFR50 criteria as part of the supplier selection process. These instructions shall describe the methods and techniques used to evaluate the supplier's QA program.

The QA Division shall re-evaluate the supplier's QA program at intervals consistent with the importance, complexity, and quantity of the item or services to effectively maintain control of quality. Procurement documentation will specify mandatory hold points for witnessing or inspection of purchased materials, equipment, or services, if required by NPPD.

Upon receipt at the station, material, parts, and equipment purchased and identified as "Essential" or "Quality Commercial Grade" shall be placed in a segregated storage area until all inspections are complete and all required certification and documentation is received.

To prevent inadvertent use or installation, items which are nonconforming with requirements shall be placed on "Hold" status (i.e., placed in segregated areas). Items placed on "Hold" status shall not be issued by the Warehouse without the written permission of the Site VP or designee, and then only after proper arrangements have been made to assure that necessary steps will be taken to bring all aspects of the particular item into conformance with normal requirements prior to the system containing components in "Hold" status being considered operable.

If appropriate, suppliers of essential equipment shall be required to provide certified documentary evidence that the material supplied conforms to the purchase document requirements; e.g., material test report, code required test and inspection, documentation, etc. A complete set of documentation required by the procurement document for all essential materials, equipment, and services will be filed at CNS.

2.8 10CFR50, Appendix B, Criterion VIII: Identification and Control of Parts, Materials, and Components

To the maximum extent practicable, activities carried out during operation of CNS will comply with the requirements for identification and control of materials, parts, and components as set forth in the as-built drawings and specifications for the station. Where special measures are required to assure proper identification of materials, parts, and components, such requirements will be incorporated directly into the procurement documents for such parts and assemblies. Such identifications which may include heat numbers, serial numbers, or other means of identification of the item will be incorporated into the procurement documents to provide means of traceability. Material received at CNS which has not been properly identified shall be segregated and tagged to indicate a "Hold" status. Except as indicated in Section 2.7 above, such parts will not be issued or used prior to final acceptance. Station procedures will incorporate requirements necessary to assure that the identification measures are properly carried out at the station, that unacceptable items will not be used in essential systems, and that the components to be used in essential systems receive independent verification of component identity prior to installation.

2.9 10CFR50, Appendix B, Criterion IX: Control of Special Processes

General maintenance procedures provide for performance of special processes by qualified personnel using qualified and approved procedures. Control procedures provide for documentation of activities, and for proper integration of QC Inspection. In most cases, the procedures will be prepared only when a specific process is required in the maintenance, repair, or modification of essential equipment at CNS. These procedures shall also require special processes, such as welding, heat treating, and Nondestructive Examination (NDE), to be controlled and performed by qualified personnel in accordance with qualified procedures.

CNS controls over special processes are within the purview of QA Division reviews. Such reviews should ensure that codes, standards, quality requirements, and acceptance criteria are appropriately incorporated into process controls and related procedures.

2.10 10CFR50, Appendix B, Criterion X: Inspection

CNS Management is responsible to ensure that QC inspections are appropriately assigned for activities affecting quality. A Peer QC Program shall be implemented in which QC inspections are normally performed by CNS personnel, qualified as QC Inspectors, and who may also be as qualified to perform the work as they are to inspect the work. QC Inspectors shall be qualified/certified in accordance with NPPD's commitment to ANSI N45.2.6-1978, "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants." Details for the conduct of the QC Program will be procedurally established. SORC reviews the controlling documents (procedures) governing inspection implementation to ensure incorporation of appropriate quality requirements.

QA shall routinely perform audits and surveillances of QC inspection activities at intervals and levels consistent with the importance of the activity. Special inspections, such as those requiring qualification to American Society for Nondestructive Testing (ASNT) ASNT-TC-1A, are normally contracted to approved suppliers. If direct inspection is impossible, indirect control methods shall be specified in the instructions to provide a method of monitoring process methods and equipment. The results of all inspections shall be placed in permanent record storage.

Specific to the ANSI Standard related to this criterion, the following commitment applies:

1. ANSI N45.2.6-1978 "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants," and its associated Regulatory Guide 1.58 (withdrawn[3] 7/31/91) is applicable to the CNS QA Program, with the following exceptions/clarifications:

   (a) QC and test functions performed at CNS are incorporated directly into the station procedures. Inspection points are then performed and signed off by qualified personnel not directly performing or supervising the step(s) being inspected. Selection of candidates for QC certification is a function of CNS Management. Actual certification of QC inspectors is the responsibility of the QA Division.

   (b) NDE is performed in accordance with the recommended Practice No. SNT-TC-1A (endorsed by ASNT). These services are primarily contracted to an approved supplier. Any required NDE will be performed by personnel who are qualified and certified per ASNT-TC-1A.

[3]Although this Regulatory Guide has been withdrawn, it still forms the basis upon which NPPD commitments were originally made and therefore remains a part of the QA Program.

2.11 10CFR50, Appendix B, Criterion XI: Test Control

Test programs performed by the station will be defined by written procedures and instructions. These test programs include the preoperational tests, start-up test instructions, operational testing, and surveillance testing of SSCs to demonstrate their capability to perform satisfactorily as a part of an integrated system and to demonstrate conformance to the requirements of drawings, specifications, procedures, and instructions. Acceptance tests will be developed for SSCs to demonstrate their capability to perform satisfactorily following repairs or modification prior to returning to service. Test procedures will identify the inspector, test performer, date, and data recorder. In addition, test procedures shall specify test requirements and quantitative and qualitative acceptance criteria where appropriate. Each type of acceptance test has individual test procedures which include quality control provisions, acceptance criteria, and check points for observation or checking of important aspects, where appropriate. These test procedure prerequisites will include the test instrumentation requirements and environmental conditions. All Special Test Procedures, Special Procedures, and Station Operating Procedures are routinely reviewed by SORC. Appropriate reports shall be prepared to document that results of tests meet prescribed acceptance criteria.

QA Audit and Surveillance activities shall be performed to assure that tests are being performed in accordance with the requirements of the procedures, that results are evaluated and compared to the specified acceptance criteria, and that tests are being performed by appropriately trained personnel.

2.12 10CFR50, Appendix B, Criterion XII: Control of Measuring and Test Equipment

Procedures shall define the requirements of inspection, maintenance, repair and calibration of all tools, gauges, instruments, and other measuring and testing devices which are used in activities which affect quality of safety-related equipment.

Each permanent or temporary installed plant instrument performing an essential function has been identified and placed on a regularly-scheduled program of inspection, test, and recalibration. All test and measuring equipment required for calibration of this instrumentation shall also be placed on a regular program of inspection, test, and recalibration and will be appropriately tagged. Documented calibration records are reviewed, as required, to evaluate calibration performance and frequency, and changes are made as may be necessary.

For equipment used to calibrate process equipment, procedures will define action to be taken if regularly-scheduled calibration checks reveal an out-of-specification condition exists. When inspection, measuring, and test equipment are found to be out of calibration, an evaluation shall be made documenting the validity of previous inspection or test results and of the acceptability of items previously inspected or tested. Should the evaluation determine that previous inspection or test results obtained with the affected instrument are unacceptable, the condition shall be documented per the Corrective Action Program (CAP; refer to Section 2.16). Reference and transfer standards, traceable to the National Institute of Standards and Technology (formerly NBS), will be maintained at CNS.

Audits or surveillances by the QA Division, the SRAB, or NPPD management will include review of the calibration program.

2.13 10CFR50, Appendix B, Criterion XIII: Handling, Storage, and Shipping

The procedures for procurement and control of essential spare parts, materials, replacement parts, and equipment include the requirements for the control, handling, cleaning, shipping, receiving, and storage of essential parts and material. QAPs and NQPs provide for QA activities to assure that procedures are followed and that essential parts and materials are received, inspected, stored, and controlled in such a manner to prevent degradation.

Specific to the ANSI Standard relating to this criterion, the following commitment applies:

1. ANSI N45.2.2-1972, "Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants (During the Construction Phase)," and its associated Regulatory Guide 1.38, Revision 2 is applicable to the CNS QA Program, with the following exceptions/clarifications:

   (a) NPPD's QA program is structured to identify safety-related equipment and provide for designation of packaging, shipping, receiving, storage, and handling requirements for purchased parts and materials. The classifications of this standard cannot be applied directly to individual spare parts or subassemblies of the parent equipment. Due to difference in volume, complexity, inspectability, etc., the packaging, shipping, handling, and storage requirements of spare parts and subassemblies will necessarily be different from the requirements which may be imposed on the entire component or piece of parent equipment.

   (b) The majority of items purchased for an operating plant consist of components, subassemblies, and individual spare parts which could be used in a multitude of different applications. Such items are purchased to the most stringent requirement for their intended use. The volume and characteristics of procurement during the operational phase differ significantly from those purchases made during the design and construction phase. Items requiring special storage protection will be identified on the purchasing documents. Items that must be stored outdoors (equivalent of ANSI N45.2.2 Level D) and items that must be stored in covered but unheated conditions (equivalent of ANSI N45.2.2 Level C) will be evaluated on an individual case basis. However, it is not considered practicable to pre-classify individual parts by levels as required by Section 2.7 of this standard. Shipping and packaging requirements for such items will likewise be handled in the procurement documents, as appropriate.

2.14 10CFR50, Appendix B, Criterion XIV: Inspection, Test, and Operating Status

A "tagout" system shall be appropriately utilized to prevent unauthorized operation or adjustment which could endanger the safety of personnel, damage equipment, or invalidate the results of tests already performed. These tags shall indicate abnormal equipment test and inspection status and reference special instructions for equipment located throughout the CNS.

Tagout procedures, where necessary, shall require that equipment be tagged and that the associated power supplies, starters, switches and controls on the main control panel are tagged as well, to warn against operation. In some cases, power supplies will be disconnected and tagged to prevent inadvertent operation. Tagout will be controlled in accordance with station tagout procedures by a licensed Senior Reactor Operator. Records will be maintained to enable operators and Shift Supervisors to determine the status of the equipment tagged. The Nuclear Power Group will periodically verify the status of equipment tagged by performing an audit or surveillance.

A configuration change control program will be maintained to provide a method for recording the installation and removal of jumpers, fuses, or wire terminal disconnections. This record will include the location, reason, name of person authorizing action, and name of person performing the installation.

2.15 10CFR50, Appendix B, Criterion XV: Nonconforming Materials, Parts, or Components

Station procedures include requirements for the identification and tagging of nonconforming materials, parts, or components (refer to Sections 2.7 and 2.8 for additional discussion).

Nonconforming items will be controlled in such a way as to prevent their inadvertent use or installation. Disposition decisions such as use-as-is, re-inspection, returning to the manufacturer, scrapping, repair and/or rework will be performed and documented in accordance with station procedures.

Any decision to reduce requirements to permit use of nonconforming parts, materials, or components in essential systems shall be documented per the CAP (see Section 2.16), and shall be subject to SORC review and approval. Appropriate design modification documentation shall also be completed, if required.

2.16 10CFR50, Appendix B, Criterion XVI: Corrective Action

The CAP for CNS shall provide measures to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective materials and equipment, and nonconformances, are promptly identified and corrected. Measures taken to disposition significant conditions adverse to quality shall include: immediate actions taken, the cause of the condition, corrective actions, and actions taken to preclude recurrence. The identification of significant conditions adverse to quality shall be documented and reported to the appropriate levels of management. A monthly report of open CAP items shall be prepared and distributed to Senior Management and Department Management personnel, including the Site VP.

The CAP shall be utilized by all personnel performing operation, maintenance, modification, or other quality-related functions or activities at CNS, to document and report such deficiencies or discrepancies as:

(a) Deviations from approved procedures.

(b) Nonconforming materials, parts, or components received from outside suppliers via essential end use procurement documents.

(c) Nonconforming materials, parts, or components within the plant.

(d) Nonconforming materials brought on site without following established receiving and inspection procedures.

(e) Orders or recommendations to stop work.

(f) Reportable occurrences.

(g) Any other deficiency which violates the intent of the QA Program and which could have a significant adverse effect on quality.

(h) Deviations which could be reportable under 10CFR21.

(i) Violations of regulations or code requirements.

Failures, malfunctions, deficiencies, unusual operating experiences, and deviations which require formal reporting to the NRC will be reviewed and evaluated by the SORC and, where appropriate, by the SRAB. It will be the responsibility of CNS personnel to identify and promptly correct all such deficiencies or malfunctions either by improved maintenance, repairs, replacements, or modification. In all cases, the objective and the corrective action will not only be to correct the existing defect or deficiency, but also to include measures to determine cause and prevent recurrence of similar failures. QA activities will verify that corrective action is performed in accordance with approved written procedures and that the details of the corrective action are properly documented for the permanent station records.

Deficiencies and/or deviations identified by QA Division personnel shall be reported per the guidance defined in NQPs and/or the CNS CAP.

2.17 10CFR50, Appendix B, Criterion XVII: Quality Assurance Records

All activities having a significant effect on quality and safety will be documented, and all such documentation will be incorporated into the station records storage facility. Record identification, filing, storage, retrieval, access, control, retention, auditing, and safeguarding of all quality-related records associated with CNS will be in accordance with approved procedures. Records to be maintained include all records accumulated during engineering and construction and those records generated during station operation, maintenance, and modification as defined in Sections 2.6 of this Policy Document. These records shall also include qualification of personnel, equipment, and procedures. Inspection and test records shall identify the inspector, data recorder, method of observation, results, acceptance, and all nonconformance reports issued to document noted deficiencies.

NPPD personnel will be allowed to maintain active working files at their work stations. The time frame for submitting these records to record storage facilities will be determined by their respective administrative procedures.

Administrative procedures shall provide for methods for changing records that provide clear identification and authorization of the change.

Specific to the ANSI Standard related to this criterion, the following commitment applies:

1. ANSI N45.2.9-1974 "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants," and its associated Regulatory Guide 1.88, Revision 2 (withdrawn[4] 7/31/91), shall be applicable to the CNS QA Program, with the following exception/clarification:

   (a) For those design, manufacturing, construction, and operating records generated prior to implementation of this standard, it is not our intent to backfit the detailed requirements of this standard to those records. All such records, however, have been initially designated for lifetime storage, until specific review dictates otherwise, and will be stored in the record storage facility. Record indexes and filing systems shall be established to permit reasonable identification and retrieval. The records shall be stored and preserved per the requirements of Section 6.0 of the ANSI standard.

2.17.1 Records Authentication

Authentication of records shall be in accordance with the guidance provided in Section 4, Records Authentication of NIRMA TG11-1998, "Authentication of Records and Media."

[4]Although this Regulatory Guide has been withdrawn, it still forms the basis upon which NPPD commitments were originally made and therefore remains a part of the QA Program.

2.17.2 Records Retention and Disposition

Record retention and disposition of quality-related records at CNS and the NPPD Columbus General Offices shall be prescribed by instructions and procedures in accordance with the QA Program and applicable regulatory criteria. As a minimum, these instructions and procedures shall cover the following:

(a) Records content and location;

(b) Principal location from which records are to be controlled;

(c) Complete records inventory and master index;

(d) Conditions of storage, access, and security;

(e) System of records identification, retrieval, and control;

(f) System of records transfer and disposal.

Quality Assurance records shall be entered into the controlled records system per the requirements of station procedures and ANSI N45.2.9 - 1974, "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants."

Electronic records stored on optical disc will apply the requirements of NRC Generic Letter 88-18, "Plant Record Storage on Optical Discs."

2.17.2.1 Five (5) Year Retention

Records and/or logs relative to the following items shall be kept in a manner convenient for review and shall be retained for at least five (5) years unless a longer period is required by applicable regulations:

(a) Records of normal station operation, including power levels and periods of operation at each power level.

(b) Records of periodic checks, inspection and/or calibrations performed to verify that Surveillance Requirements are being met.

(c) Records of principal maintenance activities, including inspection, repair, substitution, or replacement of principal items of equipment pertaining to nuclear safety.

(d) Records of reportable events as specified in Section 2.1.8.2.h.

(e) Records of changes to plant procedures.

(f) Records of special tests and experiments.

(g) Records of wind speed and direction.

2.17.2.2 Life Retention

Records and logs relating to the following items shall be kept for the life of the plant:

(a) Records of changes made to the station as described in the USAR and amendments and reflected in updated, corrected, and as-built drawings and records.

(b) Records of new and spent fuel inventory and assembly histories.

(c) Records of station radiation and contamination surveys.

(d) Records of off-site environmental monitoring surveys.

(e) Records of radiation exposure for all station personnel, including all contractors and visitors to the station in accordance with 10CFR20.

(f) Records of radioactivity in liquid and gaseous wastes released to the environment.

(g) Design Fatigue Usage Evaluation

1. Monitoring, recording, and evaluation will be met for various portions of the reactor coolant pressure boundary (RCPB) for which detailed fatigue usage evaluation per the ASME Boiler and Pressure Vessel Code Section III was performed[5] for the conditions defined in the design specification. The locations to be monitored shall be:

   (i) The feedwater nozzles;

   (ii) The shell at or near the waterline;

   (iii) The flange studs.

2. Monitoring, Recording, Evaluating, and Reporting

   (i) Operational transients that occur during plant operations will, at least annually, be reviewed and compared to the transient conditions defined in the component stress report for the locations listed in Item 1 above, and used as a basis for the existing fatigue analysis.

   (ii) The number of transients which are comparable to or more severe than the transients evaluated in the stress report Code fatigue usage calculations will be recorded in an operating log book. For those transients which are more severe, available data, such as the metal and

[5]See ASME Section III, 1965 Edition, paragraph N-415.2.

fluid temperatures, pressures, flow rates, and other conditions will be recorded in the log book.

(iii) The number of transient events that exceed the design specification quantity and the number of transient events with a severity greater than that included in the existing Code fatigue usage calculations shall be added. When this sum exceeds the predicated number of design condition events by twenty-five[6], a fatigue usage evaluation of such events will be performed for the affected portion of the RCPB.

(h) Records of current individual plant staff members showing qualifications and the completion of training.

(i) Records of Environmental Qualification.

(j) Records of the service lives of all hydraulic and mechanical snubbers noted in the CNS TRM, Section T3.7.3, including the date at which the service life commences and associated installation and maintenance records.

[6]The code rules permit exclusion of 25 stress cycles from secondary stress and fatigue usage evaluation. (See ASME Section III, 1968 Edition, Summer Addenda, paragraphs N-412(t)(3) and N-417.10(f).)

2.18 10CFR50, Appendix B, Criterion XVIII: Audits

The audit function is accomplished through audits, surveillances, and field observations performed to verify compliance and assess the effectiveness and performance of programs and personnel within the scope of the CNS QA Program. QA Management shall have the responsibility and authority for implementation of QA activities to audit programs defined by approved QAPs. QAPs describe specific requirements associated with the scope and frequency of audits.

Audits, surveillances, or field observations can be utilized to accomplish the requirements described in QAPs, and may be performance based or compliance oriented depending on the nature of the function being evaluated. The scope of each audit will be planned to focus, in part, on areas of vulnerability and on the quality of the product of the programs and personnel. Audits shall be performed in accordance with written instructions or checklists and conducted by trained personnel not directly responsible for areas being audited. Upon completion of audits, surveillances, or field observations a formal report will be prepared and transmitted to CNS Management in accordance with the requirements of Nuclear Quality Procedures (NQPs). Audit reports shall also include an overall evaluation of the program's effectiveness. Results of audits shall be reviewed with Management responsible for the area of activity audited.

Audit, surveillance, and field observation findings shall be appropriately documented and appropriate follow-up action shall be taken to assure that corrective action has been implemented. Follow-up action, including re-audits to verify corrective action, shall be fully documented. The audited organization shall respond as requested by the audit or surveillance report and shall review and investigate any adverse findings to determine and schedule appropriate corrective action including action to preclude recurrence as needed. NQPs describe the specific requirements for the conduct of audits and surveillances. The SRAB will provide oversight of the CNS QA Program and audit and surveillance results.

Audits, surveillances, and field observations of selected aspects of plant operation shall be performed under the cognizance of SRAB with a frequency commensurate with their safety significance, as required by this QA Program, and in accordance with QAPs. Audits performed by the QA Department which meet this specification shall be considered to meet the SRAB audit requirements if the audit results are reviewed by SRAB.

The SRAB, or any member of management above Senior Level Managers or QA Management may initiate and carry out special QA audits within the guidelines provided by this QA Program.

Relating to this criterion, the following commitments apply:

1. ANSI N45.2.12-1977 "Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants," and its associated Regulatory Guide 1.144 (withdrawn[7] 7/31/91), is applicable to the CNS QA Program, and to the Supplier Audit Program.

2. Section 4.5 of ANSI N18.7-1976, "Administrative Controls for Nuclear Power Plants," shall be used as a guide for conducting audits.

3. The frequency of audits shall be in accordance with Regulatory Guide 1.33, Revision 2, "Quality Assurance Program Requirements (Operation)."

4. Fire protection audits shall be in accordance with NRC Generic Letter 82-21 Enclosure 1, "General Scope of Fire Protection Audits and Composition and Qualifications of Auditors."

5. Audits of the Offsite Dose Assessment Manual (ODAM) with implementing programs and procedures, including radioactive environmental monitoring activities and radioactive effluent controls, shall be conducted at least once per 24 months.

[7]Although this Regulatory Guide has been withdrawn, it still forms the basis upon which NPPD commitments were originally made and therefore remains a part of the QA Program.

2.19 Additional ANSI Standards

ANSI Standards applicable to the CNS QA Program, not directly related to the preceding sections, are discussed in this section:

1. ANSI N45.2.1-1973 "Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants," and its associated Regulatory Guide 1.37, is applicable to the CNS QA Program, with the following exceptions/clarifications:

   (a) Cleaning requirements for almost all maintenance, repair, and modification work will be considered as a part of the overall job requirements. In this respect, detailed cleaning procedures will not generally be prepared as separate documents. Necessary requirements, consistent with the scope of the work, will be included as a part of the overall work instructions. System cleanness is controlled at CNS by the following methods:

      (1) Parts and components are checked for cleanness during receipt inspection and stored in a manner that will ensure adequate levels of cleanness are being maintained.

      (2) Work instruction for safety-related maintenance activities will be evaluated by Shop Supervision to assure that adequate Foreign Material Exclusion (FME) controls are incorporated.

      (3) Parts and components are inspected for cleanness prior to installation in accordance with CNS maintenance procedures.

      (4) Work areas are maintained at a cleanliness level appropriate to the maintenance or modification activity being performed.

      (5) Quality Control, Supervisory, or Engineering Inspections before, during, and after safety-related maintenance or modification activities address system cleanness.

      (6) Random QA Audit and Surveillance of safety-related maintenance or modification activities requires verification of part, component, and system cleanness.

   (b) For cleanness classifications where the scope of plant modification work is such as to make application of the guidance provided by this standard practicable, the cleanness classifications and requirements thereof shall be evaluated and applied, as appropriate, as a part of the overall work requirements.

   (c) For most modification or maintenance work, however, involving only small portions or individual components of larger systems, it is not considered practicable to conduct cleanness tests with the American Society for Testing and Materials (ASTM) ABBE-70 Series. Appropriate cleanness will be

maintained during the work and pre-operational flushing will be conducted, consistent with the scope of the work performed and the original design requirements. Controlling the parts and components and the work area has provided CNS with reasonable levels of assurance that system cleanness will be maintained. In addition to the above, chemistry department personnel routinely sample and test for system cleanliness, corrosion, crud buildup, etc.

2. ANSI N45.2.3-1973 "Housekeeping During the Construction Phase of Nuclear Power Plants," and its associated Regulatory Guide 1.39, is applicable to the CNS QA Program, with the following exceptions/clarifications:

   (a) The plant has been divided into zones for fire protection and security purposes. The zones designated for cleanness in the ANSI Standard are primarily intended for control or work during construction of the plant. Therefore, the CNS facilities will not be classified by the zones designated in the Standard general housekeeping rules. Limitations on eating, drinking, and smoking are already provided in existing station procedures. Where special cleanliness controls, tool, and material accountability are required for particular types of work, temporary clean areas will be designated and defined in the procedures and work packages for accomplishing the work.

   (b) Fire protection and prevention will be provided in accordance with NPPD evaluation of the CNS fire protection system as required by NRC regulations.

   (c) Station procedures have been reviewed to determine the need for particular cleanness, housekeeping, and control provisions. Where indicated, procedures have been revised to incorporate such provisions, using the guidance of ANSI N45.2.3.

3. ANSI N45.2.23-1978, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants". This standard is applicable to the QA Program at CNS and to the QA Division training program.

3.0 CONTROL OF COMPUTER SOFTWARE AND DATA

This section applies to computer software (e.g., application software and configuration files), developed, purchased, leased, or maintained by NPPD for use at CNS. Station program and process procedures shall define the applicable requirements for control of computer software and data.

Measures shall be established utilizing a graded approach to ensure that the requirements for procurement, installation, design, testing, modification, and use of software and computer databases are commensurate with importance to safety. This graded approach is commensurate with importance to safety and shall be defined and controlled by Software Quality Assurance (SQA) Program implementing procedures.

3.1 Program Requirements

(a) The computer software development process, documentation requirements, and qualification and approval requirements shall be established.

(b) Methods shall be established and implemented to control the procurement of computer software.

(c) Methods shall be established and implemented to document, evaluate, and correct errors and deficiencies in computer software.

(d) Methods shall be established and implemented for control of configuration or changes to approved computer software.

(e) Methods shall be established for the installation, use, modification, and distribution of computer software and associated documentation.

(f) Methods shall be established for the maintenance and retention of computer software and associated documentation.

(g) Controls shall be established to verify and maintain the accuracy and integrity of data input into computer databases. System information should address how it will be used, accessed, and maintained to meet the requirements and procedural controls employed to preserve the integrity of the data in the system.

3.2 Applicability

The requirements of this section apply to computer and relevant data not specifically classified as a plant SSC.

The requirements of this section apply to computer software that is used to:

(a) Generate design output which defines or prescribes activities affecting safety-related functions or equipment.

(b) Directly interfaces with control room personnel and is used by them to make decisions affecting:

(1) The integrity of the reactor coolant boundary,

(2) The capability to shut down the reactor and maintain it in a safe condition,

(3) The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposure to the requirements of 10CFR100 guidelines.

(c) Perform calculations which result in acceptance of inspection or test data for quality related equipment.

(d) Design or aid in the design of quality related structures, systems, or components including physics, seismic, stress, thermal, hydraulic, radiation, and accident analysis.

The requirements of this section also apply to computer databases that are used without further verification to maintain or control descriptive information for output used in design, operation, maintenance, test, inspection or procurement of quality related items.

4.0 QUALITY ASSURANCE DOCUMENTS

The CNS QA Program is defined by written policies, procedures, and plans which shall be implemented throughout the operating life of the station. Station procedure 0-QA-01, "CNS Quality Assurance Program," further describes the requirements of and implements the QA Program at CNS.

4.1 Station Procedures

The CNS Operations Manual contains station procedures and is based on the requirements of the QA Program. Preparation and maintenance of basic work procedures is separate from the QA Division procedures. The applicable criteria of 10CFR50 Appendix B shall be incorporated into the basic work procedures as they are initiated and implemented. Such initiation and use by the line organization shall be consistent with responsibilities as described by the Three Level QA Program (Table 2). The QA Division shall provide independent oversight of work procedures randomly, periodically, and situationally, at any stage of procedure generation, implementation, or closeout.

Quality Assurance Procedures will be maintained and revised in accordance with station procedures.

4.2 Nuclear Quality Procedures (NQPs)

The QA Division staff shall prepare NQPs approved by the Senior Manager of QA and the VP - Nuclear. As described in Section 1.3 of this Policy Document, NQPs define QA activities and responsibilities which cross divisional boundaries. When approved, NQPs become a part of the CNS QA Program.

4.3 Quality Assurance Plans (QAPs)

QAPs shall define the scope of the QA Program. QAPs shall be prepared by the QA Division and shall be reviewed and approved by the Senior Manager of QA. As described in Section 1.3 of this Policy Document, QAPs outline specific QA activities and shall become a part of the CNS QA Program. The QAPs shall define the specific work which is to be subjected to QA review, surveillance, and audit, and the manner in which such review, surveillance, and audit is to be implemented. Checklists shall be prepared per the guidance provided in NQPs, defining the scope of QA Surveillance or QA Audit activities. Distribution of these Plans will be to those individuals who are responsible for that particular activity.

5.0 REFERENCES

The following documents were used in the preparation of the CNS QA Program. It is intended that these documents be used on a continuing basis in the performance of QA activities for station operation since they offer measurement criteria against which the QA Program can be evaluated.

5.1. 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants."

5.2. 10CFR50.54, "Conditions of Licenses."

5.3. 10CFR73, "Physical Protection of Plants and Materials."

5.4. NRC Generic Letter 82-21, October 6, 1982, "Technical Specifications for Fire Protection Audits."

5.5. NRC Generic Letter 88-18, October 20, 1988, "Plant Record Storage on Optical Discs."

5.6. ANSI 18.7 - 1972, "American National Standard for Administrative Controls for Nuclear Power Plants."

5.7. ANSI N45.2-1977, "Quality Assurance Requirements for Nuclear Power Plants."

5.8. ANSI N45.2.9-1974, "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants."

5.9. ANSI N45.2.6-1978, "Qualifications of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants."

5.10. ANSI N45.2.10-1973, "Quality Assurance Terms and Definitions."

5.11. ANSI N45.2.11-1974, "Quality Assurance Requirements for the Design of Nuclear Power Plants."

5.12. ANSI N45.2.12-1977, "Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants."

5.13. ANSI N45.2.13-1976, "Supplementary Quality Assurance Requirements for Control of Procurement of Equipment, Materials, and Services for Nuclear Power Plants."

5.14. ANSI N45.2.23-1978, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants."

5.15. Selected NRC Safety and/or Regulatory Guides for Water-Cooled Nuclear Power Plants, as appropriate.

5.16. ASME Section III, 1965 Edition, paragraph N-415.2.

5.17. ASME Section III, 1968 Edition, Summer Addenda, paragraphs N-412(t)(3), and N-417.10(f).

5.18. NIRMA TG11-1998, "Authentication of Records and Media," Section 4.

5.19. NUMARC 93-01, Revision 2, "Nuclear Energy Institute Industry Guideline for Monitoring The Effectiveness of Maintenance at Nuclear Power Plants April 1996."

5.20. CNS Technical Specifications.

5.21. CNS Environmental Report--Operating License Stage (NRC Docket 50-298).

5.22. CNS USAR (NRC Docket 50-298).

5.23. CNS Technical Requirements Manual (TRM).

5.24. CNS Offsite Dose Assessment Manual (ODAM).

5.25. CNS Operations Manual (station procedures).

5.26. Letter QAC93416 from G.E. Smith (NPPD QA) to G.R. Horn (NPPD SRAB Chair), dated September 8, 1993, "Clarification of NPPDs QA Audit Frequency Requirements."

5.27. Letter NSD940132 from G.R. Horn (NPPD) to U.S. NRC, dated March 1, 1994, "Annual Operating Report" (contains information regarding changes to audit frequency commitments from Letter QAC93416).

5.28. NPPD Safety Rules.

5.29. Utilities Service Alliance (USA) 10CFR50.59 Resource Manual, Revision 0.

TABLE 1:
SYSTEMS AND COMPONENTS WITHIN THE SCOPE OF THE QUALITY ASSURANCE PROGRAM[1,2]

I. NUCLEAR STEAM SUPPLY SYSTEM

- A. Reactor Pressure Vessel
- B. Reactor Pressure Vessel Supports
- C. Control Rods and Drive System Equipment Necessary for Scram Operation
- D. Control Rod Drive Housing
- E. Fuel Assemblies
- F. Core Shroud
- G. Steam Dryer
- H. Steam Separator

II. REACTOR COOLANT SYSTEMS

- A. ADS - Automatic Depressurization System
- B. HPCI - High Pressure Coolant Injection System
- C. LPCI - Low Pressure Coolant Injection System
- D. CS - Core Spray System
- E. RCIC - Reactor Core Isolation Cooling

III. REACTOR PROTECTION AND ENGINEERED SAFEGUARD SYSTEMS

- A. Reactor Protection System
- B. Standby Liquid Control
- C. Standby Gas Treatment
- D. Emergency Diesel Generators
- E. Electrical Auxiliary Power
  1. Critical 4160 V Equipment
  2. Critical 480 V Equipment
- F. Neutron Monitoring Systems
  1. APRM - Average Power Range Monitor
  2. IRM - Intermediate Range Monitor
  3. LPRM - Low Power Range Monitor

TABLE 1:
SYSTEMS AND COMPONENTS WITHIN THE SCOPE OF THE QUALITY ASSURANCE PROGRAM[1,2]

4. RBM - Rod Block Monitor
5. SRM - Source Range Monitor
6. TIP - Traversing In Core Probe

G. DC Power Supply

H. Nuclear System Leak Detection

I. Containment Isolation System

J. Nuclear Boiler and Related Instrumentation

K. Primary Containment

L. Rod Position Indication System

IV. NUCLEAR FUEL SYSTEMS

A. Refueling Interlocks for Fuel Handling and Vessel Servicing Equipment

B. Fuel Pool Liner and Gates

C. Fuel Pool Cooling and Cleanup

V. RADIOACTIVE WASTE DISPOSAL SYSTEMS

A. Process Radiation Monitoring System

1. Off-Gas Radioactivity Monitoring
2. Main Steam Line Monitoring
3. Reactor Building Ventilation Monitoring
4. Drywell and Suppression System Leak Rate
5. Liquid Process Radiation Monitoring

B. Radioactive Waste Processing System

1. Dewatering System
2. Radioactive Waste Shipping

VI. OTHER SUPPORT SYSTEMS

A. Reactor Equipment Cooling

B. Service Water

C. Emergency Bypass Function on Control Room Heating, Ventilating, and Air Conditioning (i.e., Control Room Emergency Filter (CREF) System)

TABLE 1:
SYSTEMS AND COMPONENTS WITHIN THE SCOPE OF THE QUALITY ASSURANCE PROGRAM[1,2]

D. Reactor Recirculating (Pressure Retaining Parts Only)

E. Class I, II, and III ASME Code Items

F. Reactor Feed Pumps (Pressure Retaining Parts Only)

G. Reactor Building Heating and Ventilating

H. Fire Protection

I. Security

J. Instrument Air

VII. STRUCTURES (SEISMIC)

A. Reactor Building

B. Control Building

C. Elevated Release Point

D. Intake Structure

E. Diesel Generator Building

F. Radwaste Building (Below Grade)

NOTES:

1. This listing is not intended to be all-inclusive

2. Application of the QA Program to these SSCs shall be consistent with the safety significance of the SSC.

TABLE 2:
THREE LEVEL QUALITY ASSURANCE PROGRAM
EXPLANATION OF FIRST, SECOND, AND THIRD LEVEL QA RESPONSIBILITIES

FIRST LEVEL: Work Performance and Quality Control (QC)	SECOND LEVEL: Management/Supervision Oversight	THIRD LEVEL: Quality Assurance Audit Function
Each person performing work for CNS is charged with the first-line responsibility for adherence to quality practices and procedures. An individual other than the one doing the work (not to include immediate supervision at the task site) will have primary responsibility for QC. Personnel at this level are charged with the responsibility for direct inspection, witnessing, and sign-off, attesting that work has been performed in accordance with the quality requirements of the controlling documents.	Supervision and management personnel are responsible for providing workers and QC inspectors with the proper procedures and guidance for performing quality work. These Managers and Supervisors are then responsible for second level oversight as appropriate for work involved. The QA Division will periodically review controlling documents for safety-related activities to evaluate inclusion of appropriate quality requirements.	The QA Division is responsible for conducting audits and surveillances of activities which affect quality to assure that QC and inspection programs are being implemented and that quality requirements are being met. This includes verification that activities are properly performed and procedures are adequate for the activity they prescribe. Persons performing these activities are not directly involved in the day-to-day inspection or QC functions. Audits and surveillances will normally be performed by or under the direction of QA Management, or at the discretion of on-site or off-site safety review bodies (i.e., SORC and SRAB). In addition, SRAB shall be responsible for reviewing the results of audits and follow-up audits as described in Section 2.1.7 of this Policy Document. The QA staff is also responsible for the evaluation of audit results and for verifying that identified corrective action requirements have been implemented. Such activities are conducted to provide the highest level of overview of implementation of the QA Program.