COOPER NUCLEAR STATION

QUALITY ASSURANCE PROGRAM

FOR OPERATION POLICY DOCUMENT

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COOPER NUCLEAR STATION
QUALITY ASSURANCE PROGRAM FOR OPERATION POLICY DOCUMENT

REVISION 12 - SUMMARY OF CHANGES

Section/ Paragraph	Change Descriptions	Commitment Reduction?
Index pages iii and iv	Numerous changes to the index for compatibility with organizational changes and improvements to the text as described below for each specified paragraph.	No
Section 1.0 Para. 2	The description of the purpose for implementing the QA Program has been improved to extend significantly beyond what was previously stated. This improvement encompasses the original statement, therefore there is no reduction of commitment.	No
Section 1.3 Para. 1	Improved the description of the "objective" of the Policy Document and lower tier procedures, beyond the intent for them to "set forth general requirements for the preparation of written procedures and controls...". Their intent is to articulate the requirements for total implementation of the Quality Assurance Program for the Station.	No
Section 1.5 Definition of "Design Change"	Removal of specific process types which constitute design changes has no effect on the commitment regarding the definition.	No
Section 1.5 Definition of "Nuclear Power Group Management"	The addition of this definition provides for use of the term in other sections of the document. No commitment is affected by this addition.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 1.5 Definition of "Quality Assurance Records" Para. 2	The statement of commitment is revised to clarify the intent to control in-process records. Due to the limited scope of the definition for "QA Record" as contained only in ANSI N45.2.9, it is necessary to revise the previous statement to maintain a distinction between the application of the ANSI Standard for care, retention and storage of completed QA Records, and intentions for controlling in-process records.	No
Section 1.5 Definition of "Review"	The change of title from Site Manager to Vice President-Nuclear constitutes a higher level of responsibility for the activity defined, therefore there is no reduction of commitment associated with this change. Addition of the word "or" is an editorial enhancement.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.1 Para. 1	Description of the responsibility and authority of the Vice President-Nuclear has been improved to reflect the broader authority as the "nuclear officer", rather than describing the locations where such authority and responsibility applies. This improvement does not constitute a reduction of commitment because the previous description is enveloped by the new description. Improvement is made to more accurately describe the reporting relationship of the Quality Assurance Division, and remove the phrase "the personnel assigned to", because "the Quality Assurance Division" encompasses all such personnel assigned to it.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.2 Para. 1	Specific commitment to the WASH documents is described in Section 1.2 Para. 6, which made this original paragraph redundant. Additionaly, the specific Standards contained in the WASH documents are discussed in greater detail throughout the Policy Document, along with specific commitments and exceptions. Therefore, removal of this original paragraph does not change the commitments as previously described. The new paragraph provides an improved description of the application of the QA Program, and contents of the Policy Document. An addition is made which describes the line manager responsibility for review of the implementation of the QC Program, in addition to overview by the audit process. The last sentence is revised to include commitment for periodic review of all procedures which implement the QA Program, rather than only QAPs and NQPs. There are no reductions of commitments contained in the new paragraph.	No
Section 2.2 Para.2 Item 2	"Safety Guide 33" is added to indicate the specific version of Reg Guide 1.33 which is associated with the commitment to ANSI N18.7-1972. This is a clarification of an existing commitment and does not constitute a reduction of commitment.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Secton 2.2 Para. 3	Descriptions of the various Divisions of the Nuclear Power Group responsible for identification of essential components is sufficient without the "Nuclear" prefix. Also, the Engineering organization title has been changed to remove "and Construction", although reporting relationship of the construction group has not changed. These title changes have no affect on existing commitments.	No
Section 2.2 Para. 7	The description of the Quality Assurance Training Program is changed to reflect improvement in the formalization of the program, which is now controlled as an INPO accredited training program. Prior to such formalization and on-site availability for value-added training for auditors, much of the training was obtained through off site vendors; hence the specific criteria of the previous description was directed towards accountability. The current QA Training Program is better defined by formal documentation, subject to higher standards of accountability, and is INPO accredited. The specific commitment to qualify and certify QA personnel for Lead Auditor positions in accordance with ANSI N45.2.23-1977, remains unchanged (refer to Section 2.18 Para. 2).	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.4 Para. 1	The first sentence is changed to remove reference to specific types of procedures which must define requirements for procurement, and add the generic term of "Nuclear Power Group" procedures, which encompasses all procedures describing activities affecting quality. Since the specific procedures referenced in the original statement are encompassed by the new term, there is no reduction in the level of commitment for proceduralizing procurement controls.	No
Section 2.4 Para. 8	Added the appropriate Reg Guide "1.123 Revision 1" to the commitment to ANSI N45.2.13-1976. This constitutes a corrected omission, and therefore is an improvement to the commitment.	No
Section 2.6 Para. 2 Items a) and b)	Item a):Changed the words to describe the objective for quality related document control "in support of Cooper Nuclear Station", regardless of where such activity takes place. This constitutes an improvement since the deleted description is encompassed by the new description, and therefore does not reduce commitment. Item b):Removal of the locations of quality-related records indexes does not change the intent of the objective. The commitment continues to apply regardless of the location of indexes, and therefore there is no reduction of commitments.	No No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.6 Para. 3	Changed the description of responsibility for establishing effective interfaces and document control procedures to "Nuclear Power Group Management". This improves the intent to describe the responsibility to assign ownership of the program and it's interfacing components by management having the highest authority for implementing this element of the QA Program. Therefore, this does not constitute a reduction in the level of commitment to establish such interfaces and procedures.	No
Section 2.10 Para. 1	The last two sentences have been revised to improve readability only. There is no value or quality impact to describing where these procedures are maintained, within the context of the Policy Document. No technical changes are introduced, since the intent to describe that the quality-affecting QC Program must be procedurally established, is maintained.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.16 Para. 3	The paragragh has been rewritten to permit more reasonable flexibility for report type and frequency. Currently, various Nuclear Action Item Tracking (NAIT) reports are distributed in the NPG paperless environment to the responsible managers and supervisors, including a 3-day look-ahead, overdue lists, weekly trend data, and monthly reports. Additionally, monthly performance indicator reports are made available to the entire NPG Management and the Board of Directors. The purpose of the original statement was to initiate timely reports to permit management overview and timely adjustment of performance. The revised wording encompasses this original intent, therefore there is no reduction of commitment by this change.	No
Section 2.16 Para. 5	Changed the description regarding separate reports "for each nonconformance". Paragraphs 1 and 2 of this section sufficiently describe commitments for reporting of nonconformances and conditions adverse to quality. Although separate reports may be generated, appropriate practice is to group nonconformances resulting from a common cause, so that comprehensive corrective actions can be considered and applied. This position constitutes an improvement and not a reduction in commitment, in that isolated nonconformances might otherwise be corrected without considering a bigger, more generic root cause.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.16 Para. 6	Deleted the origin of the quarterly Trend Report specifically from "the QA Division", and replaced it with the statement that such a report "shall be issued" as previously committed. The input for the Trend Report comes from various objective sources such as the Corrective Action Program and data from NRC Inspection Reports, therefore the origin of the report has no consequence which affects the content and the ability for the report to "identify adverse trends that require corrective action", which remains its' intent. Therefore there is no reduction in the level of commitment to generate the report.	No
Section 2.17 Para. 2	Revised the description of personnel allowed to maintain active working files to "Nuclear Power Group" personnel. This change does not represent a reduction in the commitment regarding to whom the allowance applies, because the referenced "administrative procedures" specify the particular types of quality-related records, the allowance and duration for active file retention, the location for active files, and the final suspense of such records.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.17 Para. 4	Removed reference to specific titled managers and replaced with the statement that "Detailed procedures describe processes for" processing records. As discussed above for changes made to Section 2.6 Para. 3, the responsibility for establishing such procedures resides with Nuclear Power Group Management. There is no reduction in commitment introduced by this change because quality will be maintained with assignment to a higher level of management for the function.	No
Section 2.18 Para. 1	This paragraph is revised to improve the description of the internal audit program, specifically to: characterize the implementation of performance based auditing; describe the application of the audit program to assess the effectiveness of activities, programs, and personnel; and to discuss requirements for the audited organization to investigate adverse audit findings, and respond to the audits upon request. This improved description adds requirements and clarity, and does not reduce commitments. Specific requirements for auditing and respective frequencies remain unchanged as contained within other regulatory requirements, committed ANSI Standards, and Technical Specifications.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 2.19 Para. 1 item 1.(a)(2)	Reworded and rearranged to clarify the intent for safety-related work instructions to be reviewed by "Shop Supervision" to assure provisions for "foreign material exclusion"(FME). Shop Supervision constitutes an appropriate and higher level of accountability for this review rather than a QC Inspector. The FME Program at CNS does require the documented inspection at the task site by a QC inspector, but the skill and experience for determination of appropriate FME controls during initial work instruction review is appropriately established at the Shop Supervisor level; therefore there is no reduction in the commitment for establishing FME controls during the work instruction review stage.	No
Section 3.1 Para. 2	Changes made to the description of Table 2 more clearly identify the application of the three level concept, instead of providing a more limiting example of its application. The information deleted is encompassed by the improved description, therefore there is no reduction of commitment reflected by the change.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.1 Para. 3	The specific technique of Quality Assurance "auditing" is replaced with the term "Quality Assurance oversight", which includes all techniques applied by the Quality Assurance Division, including auditing. Because auditing is encompassed by the revised terminology, there is no reduction in commitment.	No
Section 3.2.1	Description of Vice President-Nuclear responsibilities is enhanced by addition of the phrase "implementation of quality assurance activities" which is more encompassing than as previously stated. This change therefore provides the basis for deletion of the last sentence which unnecessarily contained a general listing of 10CFR50 Appendix B activities to which the responsibilities applied, and therefore does not constitute a reduction of commitments.	No
Section 3.2.2 Para. 1	Removal of the phrase "and Columbus GO" has no affect on the commitment regarding the "authority to accept or reject any or all work, materials or equipment", because the application of the authority already encompasses the quoted elements as those "associated with Cooper Nuclear Station", regardless of where such activity takes place.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.2.2 Para. 4	The change describes the responsibility of the Quality Assurance Staff to monitor interfaces and evaluate effectiveness beyond the scope of what was previously described, therefore this change encompasses the previous commitment and is not a reduction.	No
Section 3.2.3 Para. 2	Responsibility for implementation of the Quality Assurance Surveillance Program has been transferred to the Quality Assurance Assessment Manager, which is an equivalent level of authority to implement this function, therefore there is no reduction in commitment. This reassignment is reflected in the change made and described for Section 3.2.4 Para. 2.	No
Section 3.2.3 Para. 9	An addition is made to clarify the ownership of QC Program responsibilities of the Quality Assurance Operations Manager. No reductions of commitment are represented by this addition.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.2.3 Para. 11	The determination for delegation of Station Operations Review Committee (SORC) attendance during the absence of the Quality Assurance Operations Manager, must be based on qualifications for fulfilling this responsibility (specifically, training and certification on safety and 50.59 evaluations), rather than positional delegation. This change is an improvement to commit the attendance of qualified replacements for SORC attendance, and therefore is not a reduction of commitment.	No
Section 3.2.4 Para. 2	The term "assessment" has been replaced with "surveillance" in the context of this paragraph because techniques which were previously referred to as assessments are now encompassed by surveillances and evaluations. As previously described for section 3.2.4 paragraph 2, the responsibility for implementation of the QA Surveillance Program has been transferred to the Quality Assurance Assessment Manager, an equivalent level of authority. Therefore there is no reduction in commitment associated with this change.	No

REVISION 12 - SUMMARY OF CHANGES

Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.2.6 "QA Assessment Staff" Para. 1	This paragraph and following paragraphs of this section have been restructured and revised to more clearly depict the duties and responsibilities of the organizational units of the Quality Assurance Division (refer to Figure 1). Specific to this paragraph, the previous statements regarding the QA Supplier Staff assisting the CNS QA Staff was appropriate when there was a logistical separation of the organizational units of the Quality Assurance Division. All organizational units of the Division are now located on site. The revised statement does not affect the intent for assistance, because the QA Supplier Staff is part of the QA Assessment Staff which will continue to "assist with performance of internal audits" upon request. The other techniques of surveillance, evaluation and outage coverage are encompassed within the primary duties of the QA Assessment Department. There are no commitment reductions for this change.	No
Section 3.2.6 "QA Assessment Staff", Para. 2	An addition to this paragraph further describes the organizational unit of the Quality Assurance Division responsible for the surveillance and evaluation processes. No previous commitments are affected by this addition.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.2.6 "QA Operations Staff"	Since the consolodation of all Division resources on site, there is no longer the title of "CNS QA Staff". This section describes the Quality Assurance Operations Department duties and responsibilities. The deleted phrase pertaining to responsibility for "advising and assisting NPG personnel in all matters regarding Quality Assurance and Quality Control" has been restated in the first sentence, and provides an equivalent statement of commitment. Since the transfer of the Quality Assurance Assessment Department from the General Office to the site, coincident with the design engineering move to the site, there is no longer a unique "QA engineering function", which was a term applied to the intent for the QA group which was located in the General Office to overview the design engineering group. Such overview is the responsibility of the entire QA Division, as committed to by Section 2.3, specifically paragraph 3. Therefore, removal of the term from this section does not reduce the responsibility for such QA overview of engineering. The phrase regarding duties for Quality Assurance to include "procedure preparation", has been moved and more clearly described in this section entitled "Quality Assurance Programs Supervisor" (below). There are no reductions of commitment as a result of these changes.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.2.6 "Quality Assurance Programs Supervisor"	Reorganization of the QA Operations Department resulted in the removal of the Secretary position, and reassignment of the duties previously described to the higher level of QA Programs Supervisor, therefore this does not constitute a reduction of commitment. The description of responsibility for procedure preparation and processing has been moved from the previous paragraph, to more clearly assign such duties to this Supervisor position, therefore the commitment remains and has been enhanced.	No
Section 3.2.6 "Resolution of Disagreements"	Added the title for this paragraph. Removal of "the CNS and General Office" Quality Assurance Staff is necessary because all Quality Assurance organizational units are now on site. By describing resolution of differences of opinion with "line" personnel, this encompasses all possible levels of the entire organization outside of the Quality Assurance Division, and therefore this change encompasses the previous commitment.	No
Section 3.2.7 "Senior Manager of Engineering"	The title of the previous "Division Manager Nuclear Engineering and Construction" has been changed to "Senior Manager of Engineering". No responsibilities changed within the context of what was previously described as a result of this title change, therefore there is no reduction of commitment.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.2.8 "Nuclear Fuels Supervisor"	The position responsibilities as described for the Nuclear Fuels "Supervisor" have not changed from what was the title of Nuclear Fuels "Manager". These responsibilities continue to be dispatched at the same level because the position continues to report directly to the Senior Manager level. Therefore there is no reduction of authority or responsibility by this title change.	No
Section 3.2.13 "Columbus General Office Department Managers"	This section was deleted and incorporated into the following section, which has been retitled to include all Nuclear Power Group Managers. All such Managers included in this previous description are included in the Nuclear Power Group Managers, therefore there are no reductions of scope of application of the Quality Assurance Program for this deletion.	No
Section 3.2.13 "Nuclear Power Group Managers"	This new title is described in the new definition provided in section 1.5. The narrative change in this section provides more comprehensive description of the responsibilities of Nuclear Power Group Managers, and therefore does not constitute a reduction in commitment.	No
Section 3.3	Removal of the word "and" is necessary to clarify that the Quality Control functions are inspection functions, and not separate activities as previously inferred. There is no reduction of commitment associated with this change.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 3.4 "CGO Personnel"	This section is deleted because all of the quality related responsibilities as previously described are now performed on site, and are encompassed by section 3.3. The previous structure of the descriptions of "Cooper Nuclear Station Personnel" and "CGO Personnel" was necessary prior to the transfer of the quality affecting organizational units to the site. There is no reduction in the application of program commitments as a result of this change.	No
Section 3.6 Para. 1	Replacement of "station or CGO" with "Nuclear Power Group" provides an accurate application of the potential to augment staff for performance of quality related activities which support the station, regardless of the location. Therefore this change does not reduce the commitment as previously described.	No
Section 3.6 Para. 6	Removal of "and Construction" from the title of Nuclear Engineering does not affect responsibilities or commitments because the Construction Department continues to report to the Senior Manager of Engineering.	No

REVISION 12 - SUMMARY OF CHANGES

Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 4.1.3 b) Para. 1	The first sentence is reworded to clarify that the "comprehensive system" includes more than just audits, and to enhance the characterization of the audit process to apply performance based concepts. Deleted the description that surveillance and evaluation results become part of the final audit package, because such surveillances and evaluations provide for separate reporting of results to the affected organization. This provides more effective and timely feedback to line and upper management. The products of all Quality Assurance techniques (audits, surveillances, and evaluations) are input to a data base for ease of retrieval and subsequent activity planning based on previous activity results, and are filed as permanent QA Records, therefore there is no reduction in the level of commitment for archival and retrieval of quality records. Rewording of the sentence regarding QA Management responsibility for implementing the audit program is a description improvement, and does not affect the commitment. Changing the level of the opportunity for NPG Senior Managers or above to initiate audits does not reduce any commitment.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 4.1.3.b) Para. 2	The terminology has been clarified regarding the types of instructions and guidelines which contain descriptions, timing, and frequencies for conducting audits. This improved description does not constitute a reduction of commitment.	No
Section 4.1.3.b) Para. 3	Although the Quality Assurance Plans (QAPs) still contain the requisite information as defined in section 1.5 of the Policy Document, Audit Scoping Plans (ASPs), as described in the preceeding paragraph, are used to implement an audit, and require the use of an approved checklist. There is no reduction of commitment regarding these paragraph improvements.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Section 5.0 Para. 1-4	This section was significantly revised to focus on a more accurate description of the "method of implementation" of the Quality Assurance Program for Cooper Nuclear Station. The original three paragraphs were a reiteration of statements made in section 1.2, specifically paragraphs 1 and 6. There are no commitments made in these paragraphs which are not reiterated either in section 1.2, or in the specific descriptions of commitments to the "rainbow" standards described throughout sections 2.0 through 2.19. These reiterated statements were introduced into the original Policy Document at a time when there was limited "operational phase" experience. The added statement (paragraph 4) reflects a mature and current day understanding of the principles for properly managing the implementation of the nuclear Quality Assurance Program, by focusing on management attention, and critical assessment and oversight by Senior Management and independent groups.	No
Section 5.0 Para. 8	The added statement is an improvement to clearly describe the responsibility of management 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".	No
Section 5.0 Para. 9	Editorial enhancement only.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Figure 1 Page 8-1	The organizational chart is revised, consistent with specific changes contained in this Document revision, and as herein described. The organizational changes do not constitute any reduction in the levels of Quality Assurance Program responsibility or implementation, and therefore do not change previous commitments.	No
Table 2 Page 9-5 Section a)	Clarified the statement that QC Inspectors must be independent of job site supervision. This is consistent with the commitment clarification/exception for application of ANSI N45.2.6, as stated in section 2.10, item 1.(a). Therefore this clarification does not constitute a reduction of commitment.	No
Table 2 Page 9-5 Section c) Para. 1	Editorial improvements are made to the first sentence to clarify responsibility of the QA Staff for applying Divisional techniques (audit, surveillance, and evaluation) to activities which affect quality. This clarification encompasses the previous statement and is therefore not a reduction of commitment.	No

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Section/ Paragraph	Change Descriptions	Commitment Reduction?
Table 2 Page 9-5 Para. 2	The responsibility for initiation of assessments is revised to remove the intent for such activity to be directed by the QA Assessment Manager. Assessment is a process by which critical self examination is initiated by any organizational unit to determine strengths and weaknesses. This is consistent with the definition provided in section 1.5. Removal of this phrase places the responsibility for assessment more appropriately under the direction of Senior line Management, and improves the ability of the QA Assessment Manager to independently evaluate the performance and effectiveness of the self assessment process applied by line management, therefore this change improves the description and commitment for the third level of quality assurance.	No

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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:

William R Mayben
President & CEO

D R Robinson
Division Manager - Quality Assurance

Vice President - Nuclear

NEBRASKA PUBLIC POWER DISTRICT

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1.0 PROGRAM DEFINITION

¶1 In accordance with the conditions of the Nuclear Regulatory Commission construction permit and operating license for the Cooper Nuclear Station, the management of Nebraska Public Power District recognizes its responsibility for assuring that the Cooper Nuclear Station is designed, constructed, and operated in such a manner as to provide for the safety of the public. The importance of Quality Assurance in contributing to this safety as well as contributing to station reliability is also recognized.

¶2 The initial phases of the overall Quality Assurance Program, implemented during design and construction, provided an independent check for the work performed on components, structures, and systems of the station to assure that the design, analysis, materials of construction, manufacture, installation, erection, and construction met quality standards required to assure reliable and safe operation. The CNS Quality Assurance Program for Operation, as described herein, is implemented to provide ~~an independent quality check on all phases of station operation, maintenance, and modification.~~ *assurance that structures, systems, and components will perform satisfactorily, and that the public health and safety will be maintained.*

1.1 Purpose

¶1 The purpose of this policy document is to provide a description of the Quality Assurance Program to be followed during the operational phase of Cooper Nuclear Station and to identify applicability of the policies and procedures described herein. This CNS Quality

Assurance Program for Operation was developed by Nebraska Public Power District in response to the requirements of 10CFR50, Appendix B. It provides a general description of the Quality Assurance Program for Operation and requires that detailed instructions, procedures, and drawings, as appropriate, be set forth in writing and carried out by each of the responsible organizations or individuals within the District.

1.2 Policy

¶1 It is the policy of Nebraska Public Power District (NPPD) to use its best efforts to assure that the Cooper Nuclear Station is designed, constructed, maintained, and operated in a manner that will provide the highest practical degree of safety and reliability. Structures, components, and systems are designed, fabricated, erected, maintained, and modified to quality standards appropriate to their importance to the safety function. The Quality Assurance Documents will identify those structures, systems, and major components to be covered by the Quality Assurance Program in order to provide continuing compliance with these standards throughout the operating life of the station. Additionally, it is the policy of NPPD that activities affecting quality shall be documented by approved instructions, procedures, or drawings and such activities shall be implemented as documented. Such documentation shall contain adequate qualitative and/or quantitative acceptance criteria to provide a measure of accomplishment.

¶2 It is the policy of Nebraska Public Power District (NPPD) to staff the Nuclear Power Group (NPG) with properly-trained personnel in all responsible positions and job assignments. Sufficient numbers of licensed and senior licensed operating personnel will be available to assure proper operation of the station under all reasonably foreseeable circumstances including personnel turnover, vacations, and disability.

¶3 All District personnel, as well as non-District personnel who work independently under NPPD's QA Program, responsible for operating, maintaining, or designing safety-related

systems and equipment shall receive formal instruction in Quality Assurance, including: basic principles of quality assurance, 10CFR50 Appendix B, the contents of this policy document, and Quality Assurance documents, as applicable.

¶4 Trained technical, engineering, and Quality Assurance personnel shall be assigned surveillance and audit tasks to ensure compliance with the requirements of the documents which control station operation, such as the NRC license, Updated Safety Analysis Report, Technical Specifications, Operating Manual, QA Program for Operation, and other such controlling documents. During the time personnel are performing QA functions, they shall be responsible to the QA Division to maintain the organizational independence required by the QA Program.

¶5 It is the policy of Nebraska Public Power District to maintain quality standards for Cooper Nuclear Station which will ensure the high degree of reliability and safety needed to meet the overall objectives of supplying safe and dependable electric service to its customers.

¶6 The CNS QA Program for Plant Operations utilizes the guidance provided by 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. Where specific requirements included in the standards are in conflict with original design requirements set forth in the USAR and other appropriate design documents, the original design requirements shall govern. Later revisions to standards presently committed to by CNS, 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.

¶7 In summary, NPPD is committed to the continuous development of a Quality Assurance Program which will meet the requirements of 10CFR50, Appendix B, Quality Assurance

Criteria for Nuclear Power Plants, and other applicable regulations as may be promulgated by the Nuclear Regulatory Commission. This commitment applies to all NPPD organizations 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.

1.3 Objectives

¶1 ~~In accordance with the policy statements above,~~ The overall objective of ~~the CNS Quality Assurance Program for Operation, as defined in~~ *this Policy Document and* Quality Assurance Plans (QAPs) and Nuclear Quality Procedures (NQPs), is to set forth the Quality Assurance organizational structure and personnel responsibilities, and to ~~set forth~~ *articulate* general requirements for ~~the preparation of written procedures and controls necessary for quality surveillance and auditing to verify the following:~~ *implementation of the Quality Assurance Program for Cooper Nuclear Station to address the following activities, at a minimum:*

a) Regulatory criteria, codes and standards, and design bases for safety-related systems (as defined in the CNS QA Program) are incorporated into the test, operating, modifications, and maintenance procedures and instructions to meet all requirements for nuclear safety and station reliability;

b) Results of all preoperational and operational tests of safety-related systems and components conform to the requirements of the drawings, specifications, procedures, and instructions, and that appropriate reports are prepared to document that all results of tests meet prescribed acceptance criteria;

c) Nuclear Fuel is purchased, designed, manufactured, inspected, packaged, shipped, received, installed, and operated in the reactor in accordance with approved procedures, instructions, regulatory requirements, and license stipulations;

d) The Station is operated, maintained, tested, refueled, repaired, and modified, in accordance with approved procedures, instructions, regulatory requirements, and license stipulations, consistent with quality standards equal to or better than those in effect during design and construction;

e) A system is established and maintained to control, safeguard, and permit ready retrieval of quality- related documentation generated for materials and components during the design, fabrication, modification, maintenance, and operation of CNS;

f) Appropriate and complete reports, records, and logs are established and maintained so as to provide a continuing record of quality-related activities associated with station safety and reliability throughout the life of the station;

g) The NPG personnel are subjected to periodic training, retraining, requalification, and examination such as to maintain and improve their job skills which are essential to safe and reliable operation of the station;

h) Station security and nuclear fuel accountability and safeguards are maintained in accordance with approved procedures and instructions;

i) Corrective action documents/reports and associated resolutions are to be properly controlled and filed in the appropriate quality-related record files;

j) Inspection reports issued by the NRC are properly resolved and documented;

k) Spent fuel shipment activities are to be accomplished in accordance with regulatory requirements (10CFR Part 71).

1.4 Scope

The QA Program for Operation applies to those nuclear station structures, systems, and components 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 to other selected systems and programs as defined in implementing QA Plans. The requirements of this program apply to all activities which effect the safety-related functions of those structures, systems, and components, including designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, in-service inspection, and modifying.

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 structures, systems, and components which are covered by the QA Program is given in Table 1.

The Quality Assurance activities governing those structures, systems, and major components shall be performed as described in the Quality Assurance Plans (QAPs) (see Section 4.1.3).

The Quality Assurance Criteria in 10CFR50, Appendix B, are oriented primarily toward engineering, manufacturing, and construction activities. Therefore, it is necessary to define, by specific Quality Assurance documents, the manner in which the NRC Quality Assurance Criteria are to be applied to the station operating activities. Such Quality Assurance 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.

1.5 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 Quality Assurance 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 (ANS, ASME, IEEE, et al.), 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:

ANSI N45.2.10-1973 "Quality Assurance Terms and Definitions," and the associated Regulatory Guide 1.74, are applicable to the CNS Operational QA Program, with the following clarification:

There may be instances where existing procedures contain definitions that may not be in strict accordance with those provided by this standard. As existing procedures are revised, however, such definitions shall be evaluated to assure that all definitions meet those provided by this standard.

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

Assessment

A planned, methodical, and comprehensive examination of an event, program, process, activity, or function which may include, compliance with existing NPG documents and/or comparisons to existing industry information.

Audit

An activity to determine through investigation, the adequacy of, and adherence to, established procedures, instructions, specifications, codes, and standards or other applicable contractual and licensing requirements, and the effectiveness of implementation.

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.)

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".)

Condition Report

Condition Report (CR) is the vehicle utilized for identifying and correcting conditions adverse to quality, and significant conditions adverse to quality as described in 10CFR50, Appendix B. Condition Reports also provide a method for identification and correction of those conditions not specifically described in 10CFR50, Appendix B.

Controlling Documents

All those drawings, specifications, procedures, instructions, manuals, data books, Updated Safety Analysis Reports (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".)

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. ~~For the purposes of definition, "design change" includes Design Changes, Equipment Specification Changes, etc.~~

Designated Representative

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

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.

Essential

For purposes of applying and implementing this Quality Assurance Program, the term "Essential" shall apply to the following:

a) All systems, structures, equipment, and components which are identified in the USAR as having been designed and built to Seismic Class I requirements;

b) All systems, structures, equipment, components, instruments, and controls which are identified in the USAR as being required to shut down the plant and maintain it in a safe shutdown condition;

c) All other systems, structures, equipment, components, instruments, and controls which are placed in the "Essential" category by NPPD.

Evaluation

An assessment of smaller scope; focusing on a portion of a process, a specific industry event/experience, or a specific CNS event/issue. Primary emphasis is compliance with existing CNS management expectations and goals, and secondarily for comparisons to existing industry events/standards.

Functional Organization Chart

A pictorial description of the organization as it actually works showing actual lines of direction, supervision, responsibility, authority, and communication. Such functional lines may or may not coincide with regular administrative channels.

Inspection

The determination that physical characteristics meet predetermined requirements by visual checks or by other techniques such as X-ray, ultrasonic or dye penetrant examination, etc. (See also Quality Control).

(Refer also to ANSI N45.2.10 for definition of "Inspection".)

License/ 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 U.S. Nuclear Regulatory Commission.

Lower Tier Procurement

Procurement by a supplier from a subsupplier of items or services.

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.

Major 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 creation of an unreviewed safety question.

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 present an unreviewed safety question.

Monitor

Periodically observe on a formal or informal basis whether work is being performed according to the requirements of the controlling documents (see also Surveillance).

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.

Nuclear Power Group Management

The Cooper Nuclear Station management comprised of the Vice President - Nuclear, the Site Manager, all Senior Managers, the Division Manager of Quality Assurance, and all other Managers of NPPD's Nuclear Power Group.

Nuclear Quality Procedures (NQPs)

Nuclear Quality Assurance Division Procedures that contain requirements/guidance for QA Division activities which affect activities of other divisions within the NPG and the District. NQPs define the responsibilities for implementation of the QA Program in accordance with policies and practices herein defined as they apply to the QA Division. In addition, they provide guidance for surveillance, audit, and assessment/evaluation activities to be performed by the QA Staff.

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.

Operating Procedures

Written instructions which define the normal method, means, and limits of operation, in all modes, of a nuclear power station, a system or systems within the station, or station processes.

Purchaser

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

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; and

c) Appropriate records, documentation and/or drawings are maintained to show compliance with a) and b) above.

Quality Assurance Documents

Those documents inclusive of the QA Policy Document, Nuclear Quality Procedures, QA Plans, Procedures (and associated data sheets), logs, etc., which have been approved for use, and whose intended function is to provide direction, verification, or documentation for activities affecting quality.

Quality Assurance Plans

Quality Assurance Plans are those documents specifically designed to provide detailed quality requirements for a given functional area. The plans are generated by applying the 18 criteria of 10CFR50, Appendix B, to each functional area and then deriving the specific quality requirements for that area.

Quality Assurance Records

Those records (see Reference 7.9) which have been completed and furnish documentary evidence of the quality of items and/or activities affecting quality.

~~A document becomes a Quality Assurance Record when the activity related to the document becomes part of the operating condition of the plant.~~

Control provisions shall be established for in-process records at the point at which they attest to completion of quality related activities.

Quality Commercial Grade

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

Commercial Grade Item (CGI) - An item that meets all of the following criteria:

a) Not subject to design or specification requirements unique to nuclear facilities or activities;

b) Used in applications other than nuclear facilities or activities; and

c) Is ordered from the manufacturer's published product description, e.g. catalogue, as an off-the-shelf item.

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 by which an activity can be measured.

Quality Requirements

Those factors which define limits which must be met so that the product will perform its intended function reliably throughout its design life. They include, but are not limited to, conditions important to proper material selection, manufacture, construction, and inspection; substantiation that material or parts conform to all specification requirements, testing to demonstrate adequacy of performance; protection of finished parts to prevent deterioration; and conditions for operation, maintenance, and repair which enable continuing operation within prescribed margins of safety and within prescribed performance limits.

Right of Access

The right of the purchaser or designated representative to enter the premises of a supplier for the purpose of inspection, surveillance, or quality assurance audits.

Regulatory Criteria

That body 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.

Review

A deliberately critical examination. The term includes the routine monitoring of station operation performed by the ~~Site Manager~~ *Vice President-Nuclear* and his staff as a normal management function, and the formal independent evaluations of certain contemplated actions and after-the-fact investigation of anomalies conducted by a duly constituted review and*/or* audit group.

Safeguard (of Nuclear Material)

Measure taken to prevent diversion of nuclear materials into unauthorized or illegal uses (see also Accountability).

Safety-Related

(See "Essential")

Services

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

Significant Conditions Adverse To Quality

Any conditions that could affect safety-related structures, systems, or components ability to function within design requirements or adversely alter performance characteristics.

Station Permanent Record File

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

Supplier Evaluation

Those activities which determine the effectiveness of implementation of the supplier's Quality Assurance Program. A variety of methods may be used to perform a supplier evaluation and are described in the NQPs.

Surveillance

Surveillance is the QA Audit function consisting 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 and Monitor). Surveillance activities shall be performed in accordance with requirements specified in NQPs and QAPs.

Surveillance Testing

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

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. (Refer also to ANSI N45.2.10 for definition of "Testing".)

Traceability

The capability to identify a particular component or material and to discover its entire history, back through the written records of its material formulation (heat number), manufacture, inspection, installation, test, operation, maintenance, repair, and replacement.

Witness

Formal observation by a knowledgeable person of a particular, prescheduled event during manufacturing, inspection, installation, testing, operation, maintenance, or repair. The purpose of witnessing is to provide direct observation and evaluation of an event, independent of the group performing the particular operation.

2.0 SUMMARY DESCRIPTION

This section defines the NPPD commitment for compliance to 10CFR50, Appendix B, as applied to safety-related structures, systems, and components associated with Cooper Nuclear Station.

In addition to describing commitments to 10CFR50, Appendix B, this Section also identifies NPPD's commitment to selected ANSI Standards and their associated Regulatory Guides.

2.1 Organization

¶1 The President and Chief Executive Officer (C.E.O.) (Figure 1) represents the highest level of management responsible for establishment of Quality Assurance policies, goals, and objectives. The responsibility and authority ~~for nuclear facility and General Office support activities (including QA)~~ *as the nuclear officer* has been delegated to the Vice President - Nuclear through the President /CEO. This authority includes the right to direct, enforce, and perform any action required to ensure all activities conducted at Cooper Nuclear Station are in compliance with 10CFR50, Appendix B. In addition, ~~the personnel assigned to~~ the Quality Assurance Division *which reports to the Vice President-Nuclear,* shall have complete independence to perform audits, surveillances, inspections, verifications, assessments, evaluations and shall be independent of those groups performing, designing, purchasing, fabricating, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, in-service inspecting, and modifying.

¶2 Figure 1 of this document outlines the QA Division functional organization. Quality Assurance Personnel shall have sufficient authority and organizational freedom to:

(1) Identify quality problems;

(2) Initiate, recommend, or provide solutions for conditions adverse to quality; and,

(3) Verify implementation of solutions.

2.2 Quality Assurance Program

¶1 ~~The program shall be implemented in accordance with written, approved Nuclear Quality Procedures and Quality Assurance Plans developed by the Quality Assurance Division. The District's QA Program will comply with the Quality Assurance Guidelines contained in the Orange Book—WASH, 1284–10-26-73. Design Cor.trol, Procurement Control, Quality Control, and Quality Assurance activities associated with plant modifications will similarly conform to the guidance provided within the Gray Book—WASH, 1283–Rev.1 and the Green Book—WASH, 1309–5-10-74.~~

The Quality Assurance 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 Quality Assurance Program for Cooper Nuclear Station. Specific exceptions to criteria contained within the referenced Standards are herein described in following sections, as applicable. Specific implementing criteria for the Quality Assurance Program are contained in lower level implementing procedures.

Procedures ~~will be~~ *are* prepared for each important activity of station operation which ~~will~~ clearly define the work to be performed on a step-by-step basis and ~~will~~ identify, where appropriate, the results to be achieved. Mandatory QC inspections or tests ~~will be~~ *are* performed on an independent basis to verify that specific work activities are being correctly completed (correct results obtained) and ~~will be~~ *are* incorporated into the work procedures directly or by attachment. *Management review and* QA audit activities ~~will~~ verify that the Quality Control Program is implemented. ~~The Quality Assurance Plans~~

~~and the Nuclear Quality~~ Procedures *which implement the Quality Assurance Program* will be reviewed periodically to assure that the requirements of the program are being met and new requirements are being incorporated, *as appropriate*.

¶2 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 for the Nuclear Power Group.

2. ANSI N18.7-1972 "American National Standard for Administrative Controls for Nuclear Power Plants," and the associated Regulatory Guide 1.33 *(Safety Guide 33)*, apply to the CNS Operational QA Program with the same exceptions as those taken in other sections of this Policy Document to ANSI N45.2-12.

3. ANSI N45.2-1977 "Quality Assurance Program Requirements for Nuclear Facilities," and associated Regulatory Guides 1.28 and 1.33, shall apply to the CNS Operational QA Program, with the following exceptions:

   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.

¶3 Table 1 identifies the structures, systems, and major components associated with Cooper Nuclear Station covered by this program. Table 1 is not intended to be all inclusive. The ~~Nuclear~~ Operations, ~~Nuclear~~ Support and ~~Nuclear~~ Engineering ~~and Construction~~

Divisions, with the assistance of the QA Division, will identify essential structures, systems, and components to be included within the scope of the QA Program. The Quality Assurance 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.

¶4 In addition to essential structures, systems, and components, applicable portions of this program shall be applied to selected nonessential structures, systems, and components important to station reliability and performance. Specific application will be identified in dedicated Quality Assurance Plans.

¶5 Special process controls, test equipment, tools, skills (training, if required) shall be used during the conduct of inspection, verification and checking activities to assure a high standard of quality and reliability has been obtained on safety-related items covered by the Quality Assurance Program. Test equipment and special tools will be calibrated against a specified secondary standard.

¶6 Experienced individuals (which may include personnel from other divisions of the Nuclear Power Group (NPG), and/or outside qualified individuals) may be requested to assist in performing audits and inspections of certain CNS quality-related activities at the direction of the Division Manager of Quality Assurance. During these assignments, these individuals will have sufficient organizational freedom to identify and recommend corrections for quality deficiencies noted.

¶7 The Nuclear Training Department, in addition to QA Staff personnel, provides QA indoctrination for NPG employees as described in nuclear training program descriptions. ~~In addition, QA Staff members will attend a minimum of one training~~

~~seminar/course per year sponsored by a qualified agency and/or school. Some courses provided by the District's Nuclear Training Department shall be considered applicable to meeting this requirement. Such determination shall be made by the Division Manager of Quality Assurance. For the purposes of meeting this requirement, activities such as attendance at national conventions, participation in owners group committee's activities, and other such related items may be considered equivalent to a seminar. Such instances shall be specifically approved by the Division Manager of Quality Assurance. Ongoing QA training for personnel with nuclear plant responsibilities will be provided.~~ *Cooper Nuclear Station personnel will receive training to familiarize them with the quality assurance program. The Quality Assurance Training Program for Quality Assurance auditors and audit team leaders provides initial training for the performance of fundamental QA tasks, and provides continuing training to enhance both auditing skills and technical knowledge. Quality Assurance training for QA Staff and station personnel will be periodically evaluated and feedback provided to ensure effectiveness and improvement. The Quality Assurance Training Program and applicable training materials will receive management approval as required by governing programs and processes.*

¶8 Training activities will be audited periodically by the QA Staff to verify its scope and effectiveness.

2.3 Design Control

¶1 Implementing procedures outline the method for identifying, controlling, and implementing design changes within the Cooper Nuclear Station. 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.

¶2 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.

¶3 All design changes initiated for Cooper Nuclear Station will be forwarded to the QA Division for review and independent evaluation. These reviews shall verify the compatibility of the design change with applicable codes, standards, and regulatory requirements. Items to consider include reactor physics, stress, thermal hydraulic and accident analyses, compatibility of materials, accessibility for in-service inspection, maintenance, repairs, and delineation of acceptance criteria for inspection and tests.

¶4 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, 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 Updated Safety Analysis Report (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, shall be applicable to the CNS Operational QA Program for safety-related modification work, with the following exceptions/clarifications:

   (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 Operational QA Program is based are included in Table 1 of this policy document and the CNS "Q" 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 Section 2.3, 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 standard, 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.

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, 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 the District'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 this standard. However, in the development of the

work package, consideration will be given to the areas outlined in Section 2.2, as appropriate.

(b) The requirements of control and calibration of measuring and test equipment set forth by this 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 NPG construction management personnel, or their designated representative, 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 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. NPG construction management 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 NPG construction management based on the

acceptance criteria associated with the original design mix requirements.

(e) The inspection requirements of Section 4.2 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 ACI-304, 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 NPG construction management 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).

(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 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 are not considered applicable to short-term modification work as would be required by QA 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 Operational 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 Procurement Document Control

¶1 ~~Cooper Nuclear Station Procedures, Nuclear Engineering and Construction Department Procedures, Quality Assurance Plans, and Nuclear Quality~~ *Nuclear Power Group* 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 for essential spare parts, material, equipment, and services. These instructions and procedures shall also include provision for assuring that the necessary records are specified and provided to the District by the supplier.

¶2 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.

¶3 Procedures covering procurement provide for independent Quality Assurance review of essential and quality commercial grade purchasing documents; QA review and approval of suppliers; and QA Audit of contractor and supplier activities.

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

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

¶6 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.

¶7 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.

¶8 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*, is applicable to the CNS Operational QA Program, with the following clarification:

   (a) It must be acknowledged that equipment and components purchased during the design and construction phase were not purchased on the basis of present-day standards, especially with reference to supplier approval and supplier Quality Assurance 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, verified by NPPD QA, to maintain an "equal to or better than" condition but it is not considered practicable to backfit the requirements of this standard to all such suppliers.

2.5 Instructions, Procedures, and Drawings

Quality Assurance activities and other activities which have nuclear safety significance will be prescribed by documented instructions, drawings, and procedures as appropriate and shall be accomplished in accordance with these instructions, procedures and drawings. 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. Those acceptance criteria shall, where appropriate, require post installation testing prior to returning the component or system to service. Repair maintenance activities on essential systems are performed in accordance with the Maintenance Work Request process. The required documentation for special processes are forwarded to the CNS QA Staff for review along with special test procedures and special maintenance procedures.

Document Hierarchy shall be as follows:

Level I:

- License Basis Documents
  - Technical Specifications
  - Operating License
  - "Safety Analysis Report"
    - * Updated Safety Analysis Report

* NRC Correspondence (Commitments and SERs)

* Quality Assurance Policy Document

Level II: • Design Specifications and Drawings

Level III: • Procedures

- Administrative Procedures

- Operational Procedures

- Work Procedures

- Nuclear Power Group Directives

- Nuclear Quality Procedures

Level IV: • Policies and Guidelines

2.6 Document Control

¶1 Administrative control procedures shall be established by the Nuclear Power Group (NPG) to control the identification, indexing, filing, retention, retrieval, and distribution of quality-related records and documents. Control procedures shall be reviewed and approved by authorized personnel and are 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.

¶2 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 ~~both at the CGO and at CNS.~~ *in support of Cooper Nuclear Station.*

b) Establish an index of quality-related records ~~located at the CGO and at CNS~~ to enable personnel involved in safety-related activities to determine the proper documents to be used in the activity.

c) Establish a filing system.

d) Establish periods of retention.

e) Establish measures to control distribution and revisions.

¶3 ~~The CGO Manager of Office Systems Services, CNS station management, and the Quality Assurance Division will jointly establish~~ *Nuclear Power Group Management is responsible for establishing effective interfaces* ~~lines of specific responsibility, interfaces,~~ and document control procedures.

¶4 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 shall be applicable to the CNS Operational 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 will be stored and preserved per the requirements of Section 6.0 of this standard.

2.7 Control of Purchased Material, Equipment, and Services

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

Nuclear Quality Procedures provide for evaluation of supplier's quality 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 Quality Assurance Program.

The QA Division shall re-evaluate the supplier's quality 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" will be placed in a segregated storage area until all inspections are complete and all required certifications and documentation is received.

Items in segregated areas will not be issued, by the Warehouse, without the written permission of the Site Manager 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.

Suppliers of essential equipment, if appropriate, shall be required to provide certified documentary evidence that the material supplied conforms to the purchase document requirements such as 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 Cooper Nuclear Station.

2.8 Identification and Control of Parts, Materials, and Components

To the maximum extent practicable, activities carried out during operation of the Cooper Nuclear Station 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 the station (which has not been properly identified) will 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. CNS 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 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 QA review, inspection, 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 NDE, to be controlled and performed by qualified personnel in accordance with qualified procedures.

Maintenance modification control methods and Station Operating procedures are reviewed by CNS QA personnel. This review includes verification that necessary codes, standards, quality requirements, and acceptance criteria are incorporated to control special processes within established limits.

2.10 Inspection

¶1 Quality Control inspections have been assigned in this policy document to the organization basically responsible for the performance of the activity. A Peer QC Program will be utilized in which QC inspections are normally performed by QC Inspectors who have been selected from within the Nuclear Power Group, and who are many times just as qualified to perform the work as they are to inspect the work. QC personnel will be qualified/certified *in accordance with NPPD's commitment to ANSI N45.2.6* and will conduct the QC Program *inspections.* ~~in accordance with NPPD's commitment to ANSI N45.2.6.~~ *Detail for the* ~~This~~ conduct of the QC Program will be *procedurally established.* ~~within the detail established in the CNS Operations Manual, Volume 12.~~

¶2 Quality Assurance Audits, Assessments/Evaluations, and Surveillance of activities such nd examination of individual operating personnel and documentation at intervals consistent with the importance of the activity. Direct QA or QC inspection will also be conducted for activities such as refueling, radiochemistry, and environmental monitoring. Special inspections, such as those requiring qualification to ASNT-TC-1A, will be contracted to approved suppliers. If direct inspection is impossible, indirect control methods will be specified in the instructions to provide a method of monitoring process methods and equipment. The results of all inspections will be placed in permanent record storage.

¶3 Controlling documents pertaining to quality-related activities receive Station Operations Review Committee (SORC) approval to ensure incorporation of appropriate quality requirements. QA is a non-voting member of SORC.

¶4 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 is applicable to the CNS Operational QA Program, with the following exceptions/clarifications:

(a) It has always been the belief of NPPD that, in order to be effective, Quality Control must be built into the operation of the plant. With this in mind, Quality Control 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 QC candidates for certification is a function of Station Management. Actual certification of QC inspectors is the responsibility of the QA Division.

(b) CNS does not have the in-house capability to perform nondestructive examinations in accordance with SNT-TC-1A. These services are currently contracted to an approved supplier. Any required nondestructive examinations will be performed by personnel who are qualified and certified per SNT-TC-1A.

2.11 Test Control

¶1 Each type of test program performed by the station operating group 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 structures, systems, and components to demonstrate their capability to perform satisfactorily as a part of an integrated system. Acceptance tests will be developed for structures, systems, and components 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. 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. 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, of which QA is a member.

¶2 Quality Assurance Audits, Assessments/Evaluations, and Surveillance activities will be performed by the Quality Assurance Staff members 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. In addition, test procedures shall specify test requirements and quantitative and qualitative acceptance criteria where appropriate.

2.12 Control of Measuring and Test Equipment

¶1 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 effect quality of safety-related equipment.

¶2 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 the above equipment will 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.

¶3 A Quality Assurance Plan will prescribe the QA functions to be performed relative to the calibration program. Quality Control and Quality Assurance practices require independent checks of calibration activities. Quality Assurance Surveillance performed by the QA Staff members will verify that procedures are being properly followed; that adequate records of calibration and testing of measuring and test equipment are being generated, maintained, and that regularly scheduled adjustments are made to maintain necessary accuracy. For equipment used to calibrate process equipment, procedures will define action to be taken should 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, and documented, of 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, a Condition Report will be issued. Reference and transfer standards, traceable to the National Institute of Standards and Technology (formerly NBS), will be maintained at CNS.

¶4 Scheduled and/or unannounced audits or surveillances by the Quality Assurance Staff, the Safety Review and Audit Board, or NPPD management will include review of the calibration program.

2.13 Handling, Storage, and Shipping

¶1 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. Quality Assurance Plans and NQPs provide for surveillance and audit to assure that procedures are followed and that essential parts and materials are received, inspected, stored, and controlled in such a manner so as to prevent degradation.

¶2 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," and its associated Regulatory Guide 1.38 is applicable to the CNS Operational 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 Level D) and items that must be stored in covered but unheated conditions (equivalent of Level C) will be evaluated on an individual case basis. However, it is not considered practicable to

preclassify 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.

(c) QA Audits, Assessments/Evaluations, and Surveillances are performed to verify that the requirements of N45.2.2 are met except as noted in (a) and (b) above.

2.14 Inspection, Test, and Operating Status

¶1 The NPPD status tagging procedure, already in use throughout the system, has been adapted for use in the Cooper Nuclear Station. Where practical, particular emphasis shall be placed on tagging 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 Cooper Nuclear Station.

¶2 Tagging procedures, where necessary, will 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. Tagging will be controlled by the Shift Supervisor by requiring that serially-numbered tags, obtained from the Control Room, be used for all tagging purposes. Records will be maintained in the Control Room to enable operators and Shift Supervisors to determine the status of the equipment tagged.

¶3 A Temporary Modifications 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.

¶4 Requirements for tagging are included in the applicable procedures. Status tagging will be verified by audit and surveillance.

2.15 Nonconforming Materials, Parts, or Components

¶1 Warehouse and maintenance procedures include requirements for the identification and tagging of nonconforming materials, parts, or components, (See Section 2.8).

¶2 Nonconforming items will be controlled in such a way as to prevent their inadvertent use or installation. Such parts will be reinspected and reviewed for adequacy prior to returning them to the manufacturer, scrapping them, or arranging for them to be reworked to conform. Disposition of a nonconforming item will be determined by the responsible supervisor in conjunction with the QA Staff. Written reports of decisions to repair or rework essential items will be reviewed and approved in accordance with maintenance and/or design control procedures.

¶3 Any decision to reduce requirements to permit use of nonconforming parts, materials, or components in essential systems, will be documented per the Corrective Action Program, and will be subject to Station Operations Review Committee (SORC) review and approval. Appropriate design modification documentation will be completed, if required.

¶4 Approved Procedures will be utilized for repair and rework of essential parts and equipment. All such rework will be thoroughly documented, including Quality Control and Quality Assurance Surveillance activities, to assure conformance with the requirements of the specifications, procedures, and other controlling documents.

¶5 Essential equipment classified as scrap will be identified and segregated in such a manner to prevent inadvertent use or installation in an essential system.

2.16 Corrective Action

¶1 The Corrective Action Program (CAP) for CNS shall provide the 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, action taken to preclude recurrence, and corrective actions. The identification of significant conditions adverse to quality shall be documented and reported to the appropriate levels of management.

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

a) Deviations from approved procedures.

b) Nonconforming materials, parts, or components received from outside suppliers on essential purchase orders.

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 Quality Assurance Program and which could have a significant adverse effect on quality.

h) Deviations which could be reportable under 10CFR21.

¶3 ~~A monthly report of open NPG Action Item Tracking (NAIT) items shall be prepared and distributed to NPG Senior Management and Department Management personnel, including the Vice President Nuclear.~~ *Relevant Nuclear Action Item Tracking (NAIT) reports will be prepared and distributed to Nuclear Power Group Management on an appropriate frequency to permit timely management overview and adjustment of related performance.*

¶4 NRC Regulations which require formal reporting to the NRC of failures, malfunctions, deficiencies, unusual operating experiences, and deviations which may have a significant effect on quality or safety will be reviewed and evaluated by the Station Operations Review Committee and, where appropriate, by the Safety Review and Audit Board. It will be the responsibility of the Nuclear Group 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. Quality Assurance 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.

¶5 A separate report ~~shall~~ *may* be prepared for each nonconformance. ~~The intent of this separate report requirement is to simplify follow-up, corrective actior, record keeping, and trending.~~ *However, nonconformances may be grouped based on known or potential common cause, so that generic application and comprehensive corrective actions are considered.*

¶6 ~~The QA Division shall issue~~ A quarterly trend report *shall be issued* to the Vice President - Nuclear, which may identify adverse trends that require corrective action.

¶7 Deficiencies and/or deviations identified by QA Staff personnel shall be reported per the guidance defined in Nuclear Quality Procedures and/or the CNS Corrective Action Program.

2.17 Quality Assurance Records

¶1 All activities having a significant effect on quality and safety will be thoroughly documented, and all such documentation will be incorporated into the record storage system. Procedures will require appropriate physical storage and personnel to maintain these files. Record identification, storage, retrieval, access, control, retention, 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 the CNS Technical Specifications. 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.

¶2 ~~CNS and/or Columbus General Office~~ *Nuclear Power Group* 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.

¶3 Administrative procedures shall provide for methods for changing records that provide clear identification of the change and must be initialed and dated by the person making the change and by persons authorized to approve the changes.

¶4 The program will include Audits of record storage facilities to assure that the procedures and controls are properly implemented. ~~The CGO Manager of Office Systems Services and CNS station management will pr~~ ~~are~~ *Detailed procedures describe processes* for receiving records into the facilities and for making decisions on removal and disposal of outdated or superseded records. Refer to Section 2.6 "Document Control" for the commitment to ANSI N45.2.9.

2.18 Audits

¶1 Scheduled and unscheduled audits will be performed to ~~verify compliance to CNS QA Program requirements and to determine the effectiveness of the area audited.~~ *assess the effectiveness and performance of programs and personnel within the scope of the CNS Quality Assurance Program*. Quality Assurance Plans ~~for each functional area of station operating activities have been or will be prepared.~~ *define the application of the Quality Assurance Program to operations, maintenance, engineering, plant support and other diverse activities and programs. NPPD Management may request audits of specific activities of specific concern to them. The scheduling of internal audits will be coordinated to avoid interference of operating activities at the station to the extent practical. 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.* ~~These QA Plans identify the nature and extent of Quality Assurance audit activities to be~~

~~performed by QA Personnel or under the direction of management. Audit responsibilities are assigned to the Division Manager of Quality Assurance. Audits performed under this direction (working with the Safety Review and Audit Board (SRAB) as refereneed in Section 3.5) will be conducted according to the QA Plans to verify compliance with the Quality Assurance Program.~~ Audits shall be performed in accordance with written instructions or checklists and conducted by trained personnel not directly responsible for areas being audited. ~~NPPD Management may request audits of specific activities of particular concern to them. However, all such internal audits will be coordinated to avoid interference with the operating activities at the station.~~ Upon completion of the audit, a formal report will be prepared and transmitted to the organization audited, which will include an evaluation statement regarding the program's effectiveness. All audit findings identified will be documented and appropriate follow-up action will be taken to assure that corrective action has been implemented. Follow-up action, including reaudits to verify corrective action, shall be fully documented. *The audited organization shall review and investigate any adverse audit findings to determine and schedule appropriate corrective action including action to preclude recurrence, and shall respond as requested by the audit report. The Division Manager of Quality Assurance is responsible to see that the requirements for audits described in this policy document are carried out. The Safety Review and Audit Board (SRAB) will provide oversight of the CNS Quality Assurance Program and audit results.*

¶2 Specific to the ANSI Standards 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, is applicable to the CNS Operational QA Program, and to the Supplier Audit Program.

2. Section 4.0 of ANSI N18.7-1972 "Administrative Controls for Nuclear Power Plants," will be used as a guide for scheduling and conducting audits.

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

2.19 Additional ANSI Standards

¶1 ANSI Standards applicable to the CNS QA Program for Operation, 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 Operational 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* ~~reviewed~~ by *Shop Supervision* ~~Quality Control~~ to assure that adequate *Foreign Material Exclusion (FME)* ~~cleaning and access~~ controls are incorporated. ~~into work instruction and associated safety related activities.~~

(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, Assessment/Evaluations, 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 ASTM ABBE-70

Series. Appropriate cleanness will be maintained during the work and preoperational 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, the Water Chemistry Department routinely samples and tests for system cleanliness, corrosion, crud buildup, etc.

¶2 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 Operational QA Program, with the following exceptions/clarifications:

(a) The plant has been divided in zones for fire protection and security purposes. The zone 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 CNS 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 3. ANSI N45.2.23-1978, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants". This standard is applicable to the Operational QA Program at CNS and to the Quality Assurance Division Training Program.

3.0 ORGANIZATION AND RESPONSIBILITIES

Nebraska Public Power District is solely responsible for the operation of the Cooper Nuclear Station and will fulfill the objectives set forth in the Quality Assurance Program for Operation through its own organization and by contract with qualified contractors and consultants.

3.1 General

¶1 The overall Quality Assurance Program for Operation shall be conducted in accordance with the three levels of responsibility: Work Performance and Quality Control, Management/Supervision Oversight, Quality Assurance Audit/Surveillance and Assessments.

¶2 Table 2 defines the three levels of Quality Assurance as they are to be implemented for station operation. ~~and also shows the comparison with similar principles which shall apply to nuclear fuel procurement and any future major engineering and construction activities for the Cooper Nuclear Station.~~ *The three level concept is applicable to all safety related activities conducted at Cooper Nuclear Station.*

¶3 It is intended that clearly separate lines of responsibility be maintained between those responsible for the operation of Cooper Nuclear Station and those responsible for ~~auditing~~ *Quality Assurance oversight* to verify that all quality and licensing requirements are consistently being met. QA responsibilities will vary depending upon the type of activity involved (See Section 4.1.3). Additional details on individual QA responsibilities are given in the paragraphs which follow, together with additional explanation of the interrelationships between the various supervisors and managers involved.

3.2 Nuclear Power Group Management

¶1 Management responsibilities include assuring that activities under their control are conducted in accordance with the CNS Quality Assurance Program for Operation. This includes but is not limited to timely responses to QA Division Audit and Surveillance findings and implementation of appropriate corrective actions.

¶2 The responsibility and authority over the Safety Review and Audit Board has been delegated to the Vice President - Nuclear. The Vice President - 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 that all aspects of the QA Program are being complied with.

3.2.1 Vice President - Nuclear

The Vice President - Nuclear, under the direction of the President/CEO - NPPD is the responsible executive officer for all CNS Quality Assurance related activities. Responsibility includes the ~~Quality Assurance requirements~~ *implementation of quality assurance activities* governing those structures, systems, and components that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. ~~Pertinent activities include designing, purchasing, fabrication, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, in-service inspection and modifications that are associated with Cooper Nuclear Station.~~

3.2.2 Division Manager, Quality Assurance

¶1 The Division Manager of Quality Assurance, a member of the executive staff, reporting to the Vice President - Nuclear shall have the responsibility and authority for administrating and maintaining a Quality Assurance Program for Operation 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 Cooper Nuclear Station ~~and Columbus GO~~. The Division Manager of Quality Assurance shall direct the preparation of plans and procedures for defining the Quality Assurance functions associated with Cooper Nuclear Station to ensure that such activities are conducted in accordance with the Operating License and appended Technical Specifications. He shall also approve all plans and procedures for defining and auditing the safety-related activities within the Cooper Nuclear Station and General Office. The actual audit functions to be performed are defined more completely by the body of Nuclear Quality Procedures, and Quality Assurance Plans required by Section 4.0 of this policy document. He shall also have administrative responsibility for evaluating suppliers of nuclear safety-related equipment, materials, and spare parts and for auditing the QA/QC activities of such suppliers.

¶2 The Division Manager of Quality Assurance and Staff shall have the necessary organizational freedom and access within the Nuclear Power Group to institute the necessary Quality Assurance requirements, identify problems, and pursue prompt corrective action. Figure 1 outlines the QA Division functional organization.

¶3 The Division Manager of Quality Assurance shall monitor the Quality Assurance activities to the extent necessary for assuring compliance with the program. He shall review the effectiveness of the Quality Assurance Program with the Vice President - Nuclear on a regular basis. In addition, the Division Manager of QA has a direct line of communication with the President and C.E.O. He shall serve as a member of the Safety Review and Audit Board and provide additional QA Personnel to participate in SRAB activities when requested.

¶4 NPPD Quality Assurance Staff, under the direction of the Division Manager of Quality Assurance, shall have the responsibility and authority for implementation and ongoing development of the Quality Assurance Program for Operations. In addition, it shall be the responsibility of the Quality Assurance Division to monitor the interface between the Nuclear Power Group Divisions to ~~ensure that plant modification and repairs receive the proper design reviews and approvals.~~ *evaluate the effectiveness of management to implement interdepartmental activities affecting quality.*

¶5 Unless otherwise provided for in writing, the QA Operations Manager or the QA Assessment Manager (depending on their availability) shall function as the Division Manager of Quality Assurance in his absence.

¶6 As shown in Table 2, he shall have responsibility for accomplishment of third level QA Audits and shall obtain assistance and special expertise when necessary to complete such audits effectively.

3.2.3 Quality Assurance Operations Manager

¶1 The Quality Assurance Operations Manager, reporting to the Division Manager of Quality Assurance, shall have the responsibility and authority for implementing and maintaining the Quality Assurance Program for Operation as described herein.

¶2 He shall be responsible and have the authority to perform, direct, or coordinate ~~QA Surveillance and~~ Audit activities/programs within the Nuclear Power Group. QA review of the design and engineering functions within the NPG, including configuration management shall be included in such programs. These activities/programs shall determine if conformance with the CNS QA Program for Operation and applicable federal regulations as defined in the QA Policy Document are being maintained.

¶3 The QA Operations Manager shall advise and assist Senior Management and their staff in all matters which affect the quality of the station. Similarly, he shall advise and assist all station personnel in matters regarding Quality Assurance and Quality Control.

¶4 In addition, the QA Operations Manager shall ensure that training programs and instruction are provided for QA Operations personnel to enable them to effectively execute and monitor the Quality Assurance Program for Operation.

¶5 The QA Operations Manager shall designate members of the QA Operations Staff upon request to provide training and instruction programs to enable CNS personnel to effectively execute the District QA Program.

¶6 The QA Operations Manager is also responsible for monitoring of open audit items and interface with NRC during inspections at CNS. In addition, he shall also be responsible to verify that solutions to safety-related problems have been implemented and to perform scheduled audits of those activities as defined in Quality Assurance Plans. Additional specific duties shall be defined in the Nuclear Quality Procedures and Quality Assurance Plans, issued in accordance with Section 4.0 of this Policy Document.

¶7 The QA Operations Manager or designee shall also serve as a non-voting member of the Station Operating Review Committee (SORC).

¶8 The QA Operations Manager and Staff will observe operations, maintenance, in-service inspection, special processes, repair or modifications, and other safety-related activities covered by the Quality Assurance Program, and recommend that work stop when such activity, in their opinion, does not comply with approved controlling documents. The Site Manager 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 the Technical Specification or other approved documents governing station operation or whether there are overriding considerations of safety involved.

¶9 The QA Operations Manager 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, and the establishment of a training program. The function will also provide the communication path for the resolution of QC Inspector concerns.

¶10 The Quality Assurance Operations Manager shall have the responsibility and authority for the controlling, administrating, distributing, and coordinating changes and revisions to the Quality Assurance Program for Operation, subject to the requirements of Section 4.0 of the Policy Document.

¶11 During absence of the QA Operations Manager, an individual from his staff will be designated to act on his behalf. ~~and serve as the nonvoting member of SORC.~~ *A SORC qualified Quality Assurance representative will attend SORC meetings on behalf of the QA Operations Manager during such absences.*

3.2.4 Quality Assurance Assessment Manager

¶1 The Quality Assurance Assessment Manager, reporting to the Division Manager of Quality Assurance, shall have the responsibility and authority for implementing and maintaining the Quality Assurance Program for Operation, as described herein.

¶2 This responsibility includes the authority for implementing and maintaining the QA ~~Assessment~~*Surveillance*/Evaluation Program and the program for evaluating suppliers

for safety-related equipment, materials, spare parts, and services, and for auditing the QA/QC activities of such suppliers.

¶3 The QA Assessment Manager shall advise and assist Senior Management and their staff in all matters which affect the quality of the station.

¶4 The QA Assessment Manager and Staff shall have the responsibility for providing guidance to NPG personnel in all matters affecting quality. They shall also establish and implement the program for evaluating suppliers for safety-related equipment, materials, spare parts, and services. Additional duties are defined in the Nuclear Quality Procedures and Quality Assurance Plans.

¶5 The Quality Assurance Assessment Manager is responsible for interface, along with the Division Manager of QA, with NRC inspections conducted within the NPG.

¶6 In addition, the QA Assessment Manager shall ensure that training programs and instruction are provided for QA Assessment and QA Supplier personnel to enable them to effectively execute and monitor the Quality Assurance Program for Operation.

3.2.5 Quality Assurance Supervisors

The Quality Assurance Supervisors report to the applicable QA Manager and are responsible for the performance of work activities assigned. They are responsible to direct the performance of QA activities, and to identify any condition adverse to quality to the appropriate QA Manager. The QA Supervisors are responsible for the continued maintenance and upgrading of QA Program Documents.

3.2.6 Quality Assurance Staff

Quality Assurance ~~Supplier~~ *Assessment* Staff

¶1 The Quality Assurance ~~Supplier~~ *Assessment* Staff, reporting to the QA Assessment Manager, shall be responsible to assist and advise the QA Assessment Manager in all matters which could affect Quality Assurance activities within the NPG. This includes advising and assisting personnel in all matters regarding Quality Assurance, and verification that solutions to safety-related problems have been implemented. The QA ~~Supplier~~ *Assessment* Staff shall ~~support the CNS QA Staff in quality matters such as~~ *assist with performance of* internal audits~~, surveillances, assessments/evaluations and outage coverage~~ upon request, as agreed between the QA Assessment Manager and the QA Operations Manager.

¶2 The QA Assessment Manager has designated the QA Supplier Supervisor and Staff the responsibility for the ongoing development and implementation of the supplier evaluation program; review of procurement specifications and associated drawings to determine if special requirements such as codes, standards, materials, tools, and inspections, etc., are properly included. *Responsibility for establishing and maintaining processes for the conduct of surveillances/evaluations has been delegated to the QA Assessment Supervisor.*

~~CNS~~ Quality Assurance *Operations* Staff

¶1 The ~~CNS~~ Quality Assurance *Operations* Staff shall be responsible to assist and advise the ~~CNS~~ Quality Assurance *Operations Manager,* ~~supervisors,~~ *and other Nuclear Power Group personnel* in all matters affecting the quality of the station. These duties include: ~~procedure preparation, advising and assisting NPG personnel in all matters regarding Quality Assurance and Quality Control,~~ verification that solutions to

safety-related problems have been implemented, *and* performance of QA activities (audits, assessments, evaluations, and surveillances) within the NPG on an announced or unannounced basis. ~~and development and implementation of the QA engineering function.~~ *Responsibility for administering the internal audit program has been delegated to the Quality Assurance Audit Supervisor.*

~~Secretary to the QA Operations Manager~~ *Quality Assurance Programs Supervisor*

The ~~Secretary to the QA Operations Manager~~ *Quality Assurance Programs Supervisor* shall be responsible for administering and documenting the controlled QA program document distribution. *This position is responsible for preparation and processing of procedures for the Division and those pertaining to the Quality Control Program.* Additional specific duties shall be as defined in the Nuclear Quality Procedures, and Quality Assurance Plans issued in accordance with Section 4.0 of this policy document.

Resolution of Disagreements

Disagreements or differences of opinion on Quality Assurance matters are expected to be documented and resolved jointly by both ~~the CNS and General Office~~ Quality Assurance Staff and ~~appropriate CNS or General Office supervisory~~ *line* personnel. Where such resolution is not achieved within a reasonable period of time, unresolved differences shall be promptly reported to the appropriate Quality Assurance Manager for resolution jointly with the Division Manager of Quality Assurance and Senior Management personnel, as appropriate.

3.2.7 ~~Division Manager - Nuclear Engineering and Construction~~ *Senior Manager of Engineering*

The ~~Division Manager of Nuclear Engineering and Construction~~ *Senior Manager of Engineering* under the direction of the *Site Manager* ~~Vice President Nuclear~~ shall ~~provide technical assistance~~ *be responsible* for plant modification activities at Cooper Nuclear Station. Those Quality Assurance activities associated with such modifications will be conducted in accordance with the CNS Quality Assurance Program for Operations. These activities will be audited periodically by Quality Assurance Staff and quality-related problems shall be identified and reported to appropriate levels of management for resolution. The Quality Assurance Staff will perform the necessary follow-up action to assure that corrective action is implemented in a timely manner.

3.2.8 Nuclear Fuels ~~Manager~~ *Supervisor*

For those aspects of Fuel Management covered by the QA Program, the Nuclear Fuels ~~Manager~~ *Supervisor*, under the direction of the ~~Division~~ *Senior* Manager of ~~Nuclear~~ Engineering ~~and Construction~~, shall be responsible to furnish technical assistance as required to the Plant Manager and the QA Staff. Such assistance shall not replace or supersede the formal audits.

3.2.9 Site Manager

The Site Manager and his staff, under the direction of the Vice President - Nuclear, shall be responsible and have the authority for assuring that Quality Assurance activities, as defined by this and other approved QA Program documents are complied with. Some of these responsibilities are delegated to CNS management personnel and include Quality Control 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, NPG Directives, etc.

3.2.10 Plant Manager

The Plant Manager, under the direction of the Site Manager, has overall responsibility for plant Operations, Maintenance, Radiological, Engineering, and Scheduling department functions. The Plant Manager shall regularly review the activities of those areas for which he is responsible, station engineering, operation, radiological, and maintenance activities for the purpose of keeping abreast of significant quality activities.

3.2.11 Senior Manager of Site Support

The Senior Manager of Site Support, under the direction of the Site Manager, has responsibility for CNS activities associated with Site Security, Administrative Support, Purchasing/Materials, Accounting, Training and Emergency Preparedness. The Senior Manager of Site Support shall regularly review the activities of those areas for which he is responsible, keeping abreast of significant quality activities.

3.2.12 Senior Manager of Safety Assessment

The Senior Manager of Safety Assessment, under the direction of the Site Manager, shall provide the management focal point for Nuclear Safety at CNS. This includes responsibility for plant and industry event analysis, nuclear licensing and safety, and nuclear safety support. The Senior Manager of Safety Assessment shall regularly review the activities of those areas for which he is responsible, keeping abreast of significant quality activities and oversight activities related to Nuclear Safety at CNS.

~~3.2.13 Columbus General Office (CGO) Department Managers~~

~~CGO Departmental Managers report to either the Vice President Nuclear or the Division Manager Nuclear Engineering and Construction and are responsible for implementation of QA Program objectives within their area of responsibility.~~

3.2.13 ~~Cooper Nuclear Station (CNS) Department Managers~~ *Nuclear Power Group Managers*

~~CNS departmental managers, either directly or indirectly, report to the Site Manager as described in the CNS USAR and are responsible for implementation of QA Program objectives within their area of responsibility.~~ *Nuclear Power Group Managers are responsible for implementation of the Quality Assurance Program relating to their assigned areas of responsibility. Each Manager is responsible for assessment of the activities affecting safety and quality performance, and for providing timely resolution of conditions adverse to quality.*

3.3 Cooper Nuclear Station Personnel

The operational duties and responsibilities of the Cooper Nuclear Station personnel are described in the CNS Procedures Manual, Reference 7.5. In addition, the Cooper Nuclear Station personnel are assigned Quality Control ~~and~~ inspection functions. Station personnel, under the direction of the Site Manager and his staff, are responsible for assuring that the station is tested, operated, maintained, and modified in accordance with approved plans and procedures.

~~3.4 CGO Personnel~~

~~The duties and responsibilities of CGO personnel are described herein and in the appropriate implementing documents. These documents address the CGO~~

~~responsibility for such items as design, procurement, modification, and licensing. Reporting through department and division managers described previously, theirs is the first line responsibility for implementing this program in the CGO.~~

3.4 Safety Review and Audit Board

The Safety Review and Audit Board (SRAB) has been established to provide independent review and audit of designated activities. The board must: verify that operation of the plant is consistent with company policy and rules, approved operating procedures, and operating license provisions; review important proposed plant changes, tests, and procedures; verify that licensee events are promptly investigated and corrected in a manner which reduces the probability of recurrence of such events; and detect trends which may not be apparent to a day-to-day observer.

Specific duties and responsibilities of SRAB, including auditing, are identified in the CNS Radiological Technical Specifications (Reference 7.14), and in the SRAB Reference Manual.

3.5 Station Operations Review Committee

The Station Operations Review Committee (SORC) has been established to advise the Plant Manager in all matters regarding operational safety.

Specific duties and responsibilities of SORC are identified in Reference 7.14, CNS Radiological Technical Specifications.

3.6 Outside Suppliers, Contractors, Subcontractors, and Consultants

¶1 During the life of Cooper Nuclear Station, it will be occasionally necessary to obtain assistance from outside suppliers and contractors. At all times, these outside suppliers,

contractors, and consultants will work under the direction of the NPPD organization having primary responsibility for the particular work being performed. In those instances in which outside suppliers or contractors merely furnish personnel to augment the normal ~~station or CGO~~ *Nuclear Power Group* staff for particular activities, such outside contractor personnel shall be required to perform their work in accordance with the CNS Quality Assurance Documents and other appropriate CNS procedures and instructions. In those instances in which outside suppliers, contractors, and subcontractors are assigned primary responsibility for a particular activity, such outside contractor shall be required to maintain a Quality Assurance and Quality Control Program and organization appropriate to the work to be performed. All suppliers, contractors, and consultants performing work classified as essential shall be maintained on the appropriate section of the CNS Approved Suppliers List. Selection of outside suppliers or contractors shall require the active participation of the Quality Assurance Division in evaluating and approving their Quality Assurance Program and reviewing the procurement documents prior to awarding the contract.

¶2 In every instance in which outside contractors have responsibility for work at CNS on safety-related nuclear systems, they shall be contractually required to work to procedures approved by the District's Station Operations Review Committee. Recognized standards or existing proprietary procedures may be used, but they must be specifically invoked in writing and clearly identified as to their applicability to the CNS work.

¶3 In addition, any outside contractor performing work at Cooper Nuclear Station under their own quality assurance program shall be contractually required to prepare, prior to performing the work, a Project QA Plan specific to the work to be performed at the Station.

¶4 Contractors and consultants performing safety-related work under the District's Quality Assurance Program shall be contractually required to perform the work under District supervision and in accordance with the CNS Quality Assurance Program for Operation. District personnel responsible for such work shall assure that contractor/consultant personnel are qualified to do the work and have been provided formal instruction in quality assurance. Additionally, any calibrated tools and equipment provided by the contractor shall be recalibrated at Cooper Nuclear Station or by a District approved source, prior to use.

¶5 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. NPPD QA shall have direct access to and communication with the contractor's personnel at all levels, both at their home office and in the field.

¶6 Prior to performing work at Cooper Nuclear Station which affects safety-related equipment, outside suppliers, contractors, consultants, and selected representatives from the NPPD Nuclear Operation and Nuclear Engineering ~~and Construction~~ Divisions 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 Quality Assurance Division to ensure compliance with applicable Quality Assurance Program requirements.

¶7 At all times when outside suppliers, contractors, and consultants are obtained to assist in the execution of this QA program, the responsibility for effectiveness of these support organizations activities will remain with NPPD.

4.0 QUALITY ASSURANCE DOCUMENTS

The CNS Quality Assurance Program is defined by written policies, procedures, and plans which shall be implemented throughout the operating life of the station.

4.1 NPPD Internal Documents

Work procedures are based on the requirements of the Quality Assurance Program. Preparation and maintenance of basic work procedures is performed by engineering and operating groups, separately from the Nuclear Quality Procedures and QA Plans. Mandatory QC checkpoints shall be incorporated directly in or attached to, the work procedures to facilitate coordination between the specific work activity and the Quality Control function. It is not the intent to include the preparation of basic work procedures under the responsibility of QA, nor is it the intent to incorporate basic work procedures into the QA Program Documents. Work procedures, however, shall be reviewed by Quality Assurance for proper implementation of the QA Program objectives.

The format and content of NQPs and QAPs, shall be as specified by a Quality Assurance Procedure. Significant changes shall be reviewed and approved by the same levels of management as for the original document. Each change, when approved and issued, shall be distributed through a controlled distribution system.

Particular circumstances may occur while some work is in progress, which necessitates a change to an approved work procedure. When such circumstances arise, the changes must be authorized per procedure. The written record shall clearly show the nature and extent of the change and the reason for requiring such change.

4.1.1 Quality Control Inspection

The Quality Control inspection function shall be performed by individual(s) other than those who are actually performing the step(s) being inspected or who are providing direct, hands-on, at-the-job supervision. The Cooper Nuclear Station management, as part of their normal management function, are responsible for implementation of the Quality Control requirements of the Peer QC program; however, the QA Operations Manager is responsible to review and accept control methods prior to implementation.

Quality Assurance Management, working with NPG Management, shall verify that adequate Quality Control inspections are incorporated directly in, or attached to, the work procedures and shall periodically inspect work performance to assure that the procedures containing Quality Control inspections are being followed. The QC Program shall identify the specific work which is to be subjected to inspection or verification and shall provide in detail the elements of work to be inspected which include:

1. Identity of the inspector or data recorder.

2. Type of inspection or verification.

3. Results (data to be recorded).

4. Acceptance (qualitative or quantitative) criteria.

5. Method of disposition of unsatisfactory inspection results.

6. Reporting requirements.

In addition, clear instructions shall be given regarding the timing, frequency or scheduling, and notification requirements for such inspections so as to obtain maximum effectiveness and to minimize delays in completion of the work.

It must be recognized that certain work, particularly in nonroutine maintenance or repair, cannot be anticipated. Therefore, procedures and Quality Control inspection requirements cannot be prepared until a particular problem has been detected and evaluated.

Routine maintenance and repair of essential systems and components generally requires performance of a complete or partial Surveillance Procedure prior to placing the system back in service. This type of QC (actual performance or functional testing) following completion of work is considered a unique advantage on an operating facility. Such surveillance testing may be performed by the individuals who performed the maintenance activity. Records of the surveillance will be reviewed by the system engineer or other supervisory/management personnel.

4.1.2 Nuclear Quality Procedures (NQP)

The Quality Assurance staff shall prepare NQPs approved by the Division Manager of Quality Assurance and the Vice President - Nuclear. As described in Section 1.5 of this document, NQPs define Quality Assurance activities and responsibilities which cross divisional boundaries. When approved, NQPs become a part of the CNS Quality Assurance Program for Operation.

4.1.3 Quality Assurance Plans (QAP)

QAPs shall be developed which encompass those functional areas described within, defining the scope of the QA program. Quality Assurance Staff shall develop QAPs as needed. As described in Section 1.5 of this document, these QA Plans outline specific Quality Assurance activities and shall become a part of the CNS Quality Assurance Program for Operation. Distribution of these Plans will be to those individuals who are responsible for that particular activity.

The format and content of QAPs shall be specified in a NQP to provide uniformity and to assure that each plan is complete and adequate for the intended purpose.

The QAPs shall be prepared by the Quality Assurance Staff and shall be reviewed and approved by the Division Manager of Quality Assurance. In addition, when significant changes have been made to these documents, the QAP will be routed to affected Senior Management personnel for review and comment.

The QAPs shall define the specific work which is to be subjected to Quality Assurance 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 Nuclear Quality Procedures, defining the scope of QA Surveillance or QA Audit activities.

a) Quality Assurance Surveillance

The Quality Assurance Surveillance function is intended to provide an independent verification, on a continuing basis, that work is being

performed in accordance with the requirements of the controlling documents. Such surveillances may be performance-based or compliance oriented depending on the nature of the function being evaluated. The Quality Assurance Surveillance activities are not intended to duplicate QC inspection activities, however, duplication may occur, in the effort to satisfy both Quality Assurance Surveillance and Quality Control requirements.

The objectives of Quality Assurance Surveillance are to verify that the Quality Control inspection program is being effectively implemented; that personnel performing Quality functions are properly qualified; that adequate information is recorded to provide a complete and accurate quality history; and that deficiencies are identified, corrected, recorded, and corrective action is taken to prevent recurrence.

This philosophy shall be taken into account in developing the checklists as guidance for the conduct of Quality Assurance Surveillance activities. QA Surveillance shall be as prescribed in NQPs and QAPs.

The QA checklists shall identify the area of work to be subjected to surveillance and shall provide necessary instructions. The timing, frequency, or schedule for the surveillance shall be coordinated with the work being evaluated to ensure maximum effectiveness with minimum impact on the progress of the work.

b) Quality Assurance Audits

¶1 A comprehensive system ~~of~~ *including* planned and periodic audits *and audits selected based upon indication of performance problems* shall be

implemented to verify compliance with all aspects of the Quality Assurance Program and to determine the effectiveness of the program. The audits shall be performed in accordance with written procedures or checklists by appropriately trained personnel not having direct responsibilities for the work being audited. Depending on the nature of the function being audited, the audits are conducted in a performance-based manner to the maximum extent practical. The audits are supplemented by performance-based and compliance oriented surveillances and evaluations. ~~, the results of which become part of the final audit package. The~~ Quality Assurance ~~Assessment~~ Manage*ment* ~~and Quality Assurance Operations Manager~~ shall have the responsibility and authority for *implementation of the* ~~planning and executing~~ Quality Assurance *activities to audit programs defined* ~~Audits identified~~ by approved QAPs. However, the SRAB, or any manager or executive in the chain of organization above the ~~Site Manager~~ *NPG Senior Managers*, or above the Quality Assurance Supervisors and Managers may initiate and carry out special Quality Assurance Audits within the guidelines provided by this Quality Assurance Program. Audit results shall be reported in writing to the NPG Management in accordance with the requirements of NQPs and the results shall be reviewed with the Management responsible for the area of activity audited. Appropriate follow-up action shall be taken and documented as directed by the appropriate Quality Assurance Manager or Supervisor.

¶2 ~~Internal instructions and guidelines include descriptions and timing of types of audits to be performed; information for initiating and performing audits; and information for preparing audit reports.~~ *Audit Scoping Plans (ASPs) provide detail description of the scope within an audited area.*

NQPs describe the frequency of required audit activities, and provide guidance for audit schedules and reports.

¶3 Each ~~QAP~~ *ASP* will be implemented through the use of ~~the appropriate~~ *an approved* checklist. On the basis that some Quality Assurance Audits are to be conducted or directed by management, it is essential to maintain a high degree of flexibility in the manner of conducting an audit. It is intended that the ~~QAPs~~ *ASPs* provide audit guidelines to assure that areas to be audited are sufficiently defined in advance and that audit personnel are adequately prepared to make a meaningful audit with a minimum of interference with the progress of the work. Also, flexibility is required to permit the auditor to adapt his procedures to the conditions existing at the time the audit is made.

5.0 METHOD OF IMPLEMENTATION

¶1 ~~The CNS QA Program for Plant Operations will utilize the guidance provided by NRC publications WASH 1283 (5-24-74), WASH 1284 (10-26-73), and WASH 1309 (5-10-74) ("rainbow" series) except as noted in the "Specific Exceptions" of this section.~~

¶2 ~~The existing operational QA Program does not address all of the detailed requirements set forth in the "rainbow books." A detailed review has been made to determine where the CNS QA Program differs from the ANSI Standards cited in the "rainbow books."~~

¶3 ~~With respect to the applicability of the "rainbow books" and the associated standards, it is impracticable to apply all of the requirements set forth by these documents to a plant for which important, and (in some respects) irreversible commitments, were made at the start of commercial operation (1974). It is also impracticable to apply requirements to an operating plant which were intended solely for the design and construction phase. In the event that construction activities are undertaken, the District will commit to compliance with the applicable portions of the WASH Series ANSI Standards. It is NPPD's intent to apply quality standards to maintenance, repair, and modification activities which will provide results which are equal to or better than the original construction.~~

¶4 *The Quality Assurance Program for Cooper Nuclear Station is implemented by the development and implementation of procedures, by management attention and oversight, and by critical assessment and overview by Senior Management and independent groups. This attention and oversight is implemented consistent with the commitments to the rainbow series WASH publications as specifically described in sections 1.0 and 2.0 of this Policy Document.*

¶5 The detailed methods of implementation shall be as provided for in written and approved procedures prepared in accordance with Section 4.0.

¶6 The Quality Assurance Managers or designees shall review and comment on the NPG procedures to ascertain that necessary quality requirements are included. Procedure changes will be incorporated as necessary to correct identified control deficiencies or needs. Differences of opinion on QA comments shall be resolved as indicated in Section 3.2.6.

¶7 After review of the various NPG procedures and manuals, the Quality Assurance Managers shall review the appropriate NQPs and QAPs for the purpose of assuring that the overall QA Program objectives continue to be accomplished in each segment of the work to which this QA Program applies.

¶8 *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.*

¶9 Quality Assurance *Division* activities shall be coordinated with the SRAB and SORC. ~~QA~~ *Such* activities shall be conducted in a manner and on a schedule to assure organization, supervision, communications, and technical and administrative practices clearly provide for smooth, orderly, controlled, and safe execution of all safety-related functions.

¶10 Written reports of all QA activities, including descriptions of deficiencies and resolution thereof, shall be incorporated into the official quality records file. 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 Audits performed (internal and

external) shall be submitted to the Vice President - Nuclear by the Division Manager of Quality Assurance annually.

¶11 The Quality Assurance Staff shall maintain an up-to-date summary of the CNS Quality Assurance Policies, Procedures, and Plans, showing how this QA Program for Operation implements the NRC guidelines contained in 10CFR50, Appendix B.

6.0 RECORDS RETENTION AND DISPOSITION

Instructions have been prepared by the responsible organizations to provide guidelines for CNS and CGO record retention and disposition in accordance with this policy document and applicable regulatory criteria. As a minimum, these procedures 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 (reference 7.9) will be entered into the controlled records system per the requirements of station procedure and ANSI N45.2.9 - 1974.

7.0 REFERENCES

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

7.1 Quality Assurance Criteria for Nuclear Power Plants 10CFR50, Appendix B (USNRC).

7.2 Standard of Administrative Controls for Nuclear Power Plants, American National Standard ANSI 18.7 - 1972.

7.3 Updated Safety Analysis Report, Cooper Nuclear Station, Nebraska Public Power District (NRC Docket 50-298).

7.4 Environmental Report--Operating License Stage, Cooper Nuclear Station, Nebraska Public Power District (NRC Docket 50-298).

7.5 Cooper Nuclear Station Procedures Manual.

7.6 Safety Rules, Nebraska Public Power District.

7.7 Safety Guides for Water-Cooled Nuclear Power Plants (USNRC), as appropriate.

7.8 Quality Assurance Requirements for Nuclear Power Plants ANSI N45.2 - 1977.

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

7.10 Quality Assurance Terms and Definitions ANSI N45.2.10 - 1973.

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

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

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

7.14 CNS Radiological Technical Specifications.

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

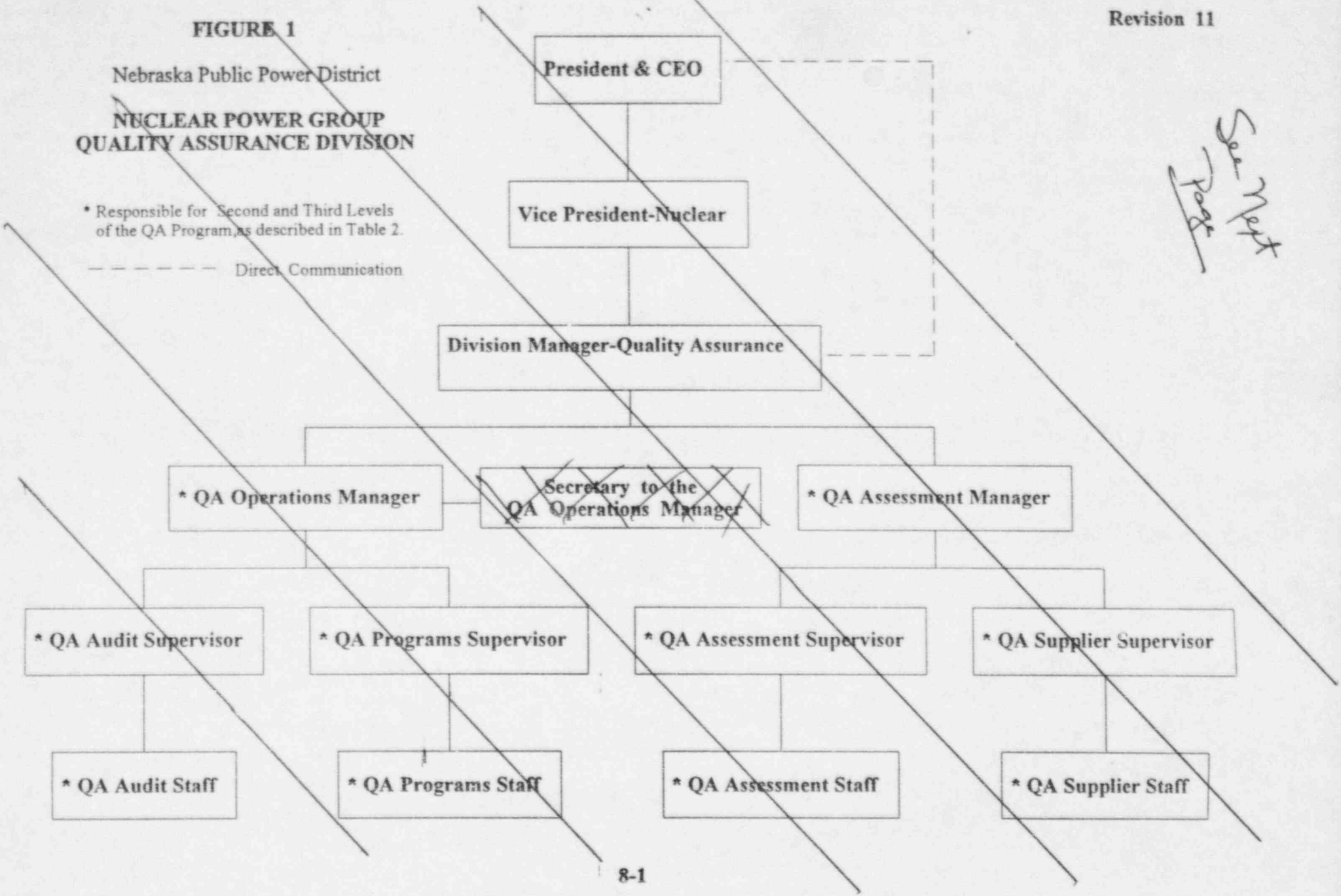
FIGURE 1

Nebraska Public Power District

NUCLEAR POWER GROUP
QUALITY ASSURANCE DIVISION

* Responsible for Second and Third Levels of the QA Program as described in Table 2.

– – – – – – Direct Communication



See Next Page

FIGURE 1

Nebraska Public Power District

NUCLEAR POWER GROUP
QUALITY ASSURANCE DIVISION

* Responsible for Second and Third Levels of the QA Program,as described in Table 2.

– – – – – – – Direct Communication

Vice President Nuclear

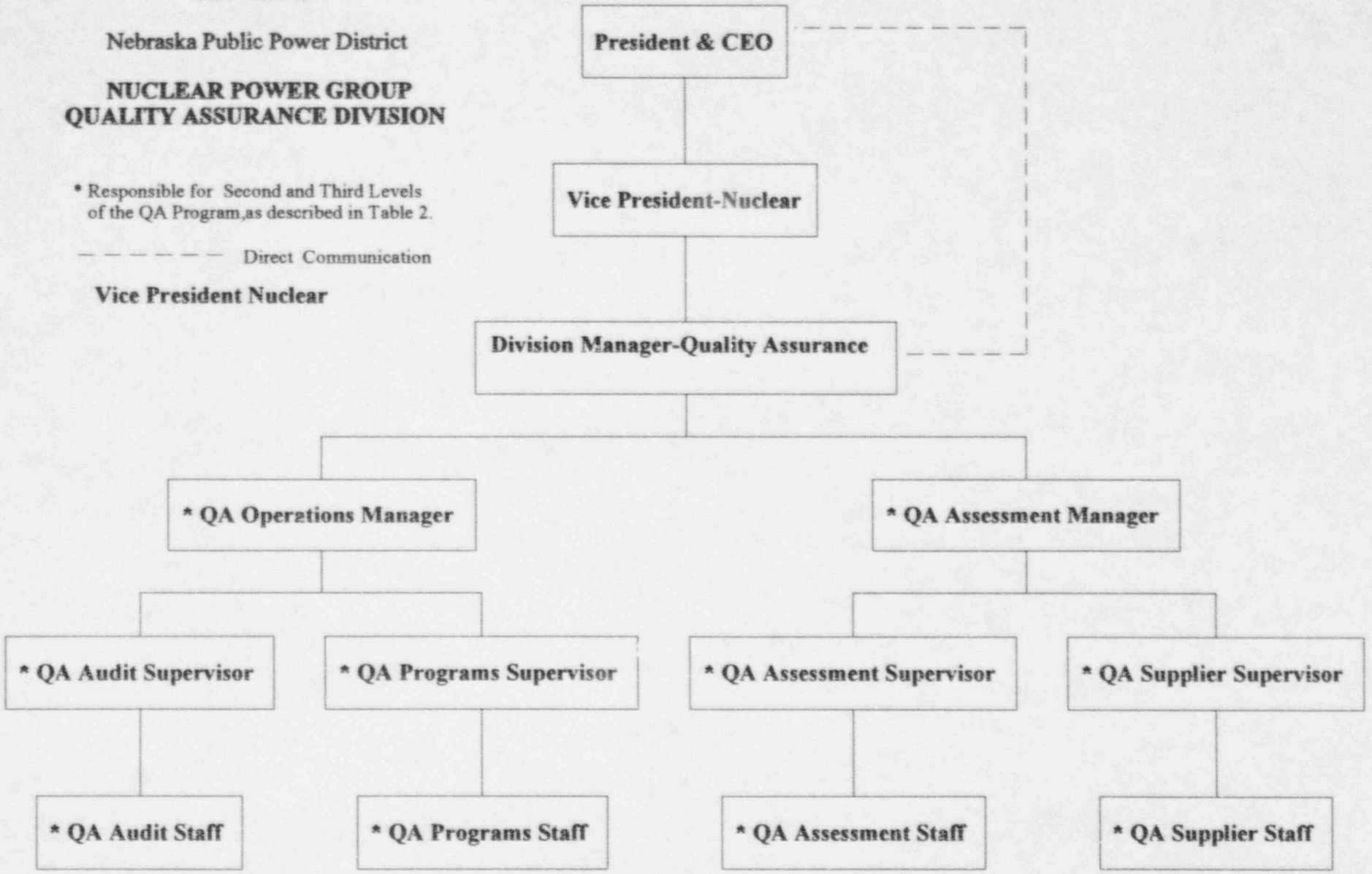


TABLE 1

SYSTEMS AND COMPONENTS WITHIN THE SCOPE OF THE QUALITY ASSURANCE PROGRAM

I. NUCLEAR STEAM SUPPLY SYSTEM

- A. Reactor Primary Vessel
- B. Reactor Primary 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. Diesel Generators

Table 1 (Cont'd.)

E. Electrical Aux 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
   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 Indicator

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

Table 1 (Cont'd.)

V. RADIOACTIVE WASTE DISPOSAL SYSTEMS

A. Process Radiation Monitoring System

1. Off-Gas Radioactivity Monitoring
2. Main Steam Line Monitoring
3. Reactor Building Vent Monitoring (GE)
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, Vent, and AC

D. Reactor Recirculating (Pressure Retaining Parts Only)

E. Class I, II, and III Code Items

F. Reactor Feed Pumps (Pressure Retaining Parts Only)

G. Reactor Building H&V

H. Fire Protection

I. Security

J. Instrument Air

Table 1 (Cont'd.)

VII. STRUCTURES (SEISMICS)

A. Reactor Building

B. Control Building

C. Elevated Release Point

D. Intake Structure

E. Diesel Generator Building

F. Radwaste Building (Below Grade)

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

2. Application of the QA Program to these systems and components shall be consistent with the safety-related significance of the system or component.

Table 2

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

a) FIRST LEVEL - Work Performance and Quality Control.

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 Quality Control. 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.

b) SECOND LEVEL Management/Supervision Oversight.

Supervision and management personnel are responsible for providing workers and QC people 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 Quality Assurance Managers are responsible for assuring that controlling documents for safety-related activities include appropriate quality requirements.

c) THIRD LEVEL-Quality Assurance Audit/Surveillance and Assessments.

¶1 QA Staff is responsible for ~~maintaining~~ *conducting* surveillances, *evaluations* and audits of ~~the work at CNS and the CGO~~ *activities which affect quality* to assure that Quality Control and inspection programs are being implemented and that quality requirements are in fact being met. This includes verification that activities are properly performed and procedures are adequate for the activity they prescribe. Persons performing these ~~audits~~ *activities* are not directly involved in the day-to-day Inspection or Quality Control functions. Audits, ~~and/or~~ surveillances *and evaluations* will normally be performed by or under the direction of the appropriate QA Manager. In addition, SRAB shall be responsible for reviewing the results of audits and follow-up audits as described in Technical Specifications. The Quality Assurance Staff is also responsible for the evaluation of audit results and for verifying that identified corrective action requirements have been implemented.

¶2 Personnel performing assessments are not directly involved in the day-to-day Inspection or Quality Control functions. Assessments will normally be performed under the direction of ~~the Quality Assurance Assessment Manager or~~ Senior line Management personnel, or at the discretion of on-site or off-site safety review bodies. Such assessments are conducted to provide the highest level of overview of implementation of the Quality Assurance Program as herein described.