KANSAS GAS AND ELECTRIC COMPANY

GLENN L KOESTER
VICE PRESIDENT - NUCLEAR

March 11, 1986

Mr. R. D. Martin, Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

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

KMLNRC 86-041
Re: Docket No. STN 50-482
SubJ: First Annual Submittal of Changes to the Operating Quality Program

Gentlemen:

In accordance with the requirements of 10CFR50.54 (a)(3) this letter contains the annual submittal of changes to the Wolf Creek Generating Station operating Quality program. These changes do not reduce the commitments in the program description previously accepted by the NRC.

Attachment 1 identifies the reason for each change and the basis for concluding that the revised program continues to satisfy Appendix B of 10CFR50 and the Final Safety Analysis Report (FSAR) Quality Assurance program commitments. Attachment 2 contains marked up FSAR pages identifying the changes. These changes will be included in the first submittal of the Updated Safety Analysis Report.

If you have any questions concerning this matter please contact me or Mr. Otto Maynard of my staff.

Yours very truly,

John G Bailey for

Glenn L. Koester
Vice President - Nuclear

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Attachment

cc: PO'Connor (2)
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ATTACHMENT 1

Change Number	Reason Why Change Does Not Reduce Quality Commitments
1	These changes were made to reflect the fact that the design, construction, preoperational testing and startup testing phases at WCGS have been completed. No operating Quality program changes have been made.
2	Throughout Chapter 17 and the remainder of the FSAR KG&E is referenced by name as being responsible for all aspects of WCGS. These changes attempt to reduce the number of KG&E specific references which will be used in the first printing of the Updated Safety Analysis Report (USAR). KG&E recognizes that they have exclusive responsibility and control over the physical construction, operations and maintenance of the facility and that any change in this status would require prior NRC approval. Generalizing the majority of the text by referencing "the Operating Agent" instead of KG&E in the first printing of the USAR will save considerable time and money should a decision ever be made to request and grant a revision to this division of responsibility. No operating Quality program changes have been made as a result of these changes.
3	All organizational descriptions are being consolidated into Section 13.1. This revision eliminates redundant text and reduces the possibility of conflicting job descriptions. The WCGS organization charts are presented in the Technical Specifications and therefore the NRC is notified whenever KG&E implements any change.
4	These changes either correct typographical errors or are editorial. No operating Quality program change has been implemented.

Change Number	Reason Why Change Does Not Reduce Quality Commitments
5	This terminology has been changed from General Office to home office. No operating Quality program change has been made.
6	Reason Why Change Does Not Reduce Quality Commitments The title of the Wolf Creek Project Policy Manual has been changed to the Nuclear Department Policy Manual. No operating Quality program change has been made.
7	Reason Why Change Does Not Reduce Quality Commitments These changes were sent to the NRC in KMLNRC 85-095 prior to receipt of the WCGS Full Power Operating License.
8	Reason Why Change Does Not Reduce Quality Commitments The intent of the word "reviewed" in the existing FSAR is that the Quality Branch will "review" Design Criteria in the course of their audits of the design process. Verification of proper application of seismic and quality classification criteria as well as quality standards remain within the purview of the independent review process which is part of the design quality assurance provisions described in the FSAR Section 17.2.3.6. This clarification does not modify the existing requirement for Quality Branch approval of changes made to Table 3.2-1 of the Standard Plant FSAR (See FSAR Section 17.2.2.2). The original intent of this paragraph has not been changed and no reduction in Quality requirements is realized.
9	Reason Why Change Does Not Reduce Quality Commitments These changes were made to incorporate information transmitted by KMLNRC 85-063 in response to NRC questions into the FSAR. No additional operating Quality program changes have been made.
10	Reason Why Change Does Not Reduce Quality Commitments This change reflects the creation of a Procurement and Material Management group. The existence of this group is shown in Section 6 of the Technical Specifications.

Change Number	Reason Why Change Does Not Reduce Quality Commitments
11	This change generalizes who evaluates each item or service to be procured to determine its safety significance. The procurement document originator may not be the expert on safety-related items or services. The function will be performed by the individual or group deemed most qualified.
12	This change adds additional information on how the procurement document control process works. The addition of this information is considered an enhancement in the operating Quality program description.
13	The original FSAR text implied that 10 CFR 21 is the only criteria relating to records on defects and noncompliance reporting. In addition, KG&E has company-specific requirements for supplier furnished records. This change does not reduce the operating Quality program.
14	This change allows voluminous acceptance/rejection criteria to be referenced rather than copied in each purchasing document package. The criteria remain unchanged and, thus, no reduction in the operating Quality program has been made.
15	The original intent of this sentence was to state that either verification methods by the purchaser or supplier controls would be used on commercial items. This change clarifies this fact. No operating Quality program change has been made.
16	KG&E verifies that adequate technical and quality requirements have been specified on purchase requisitions for safety-related materials, parts, components or services. No exception is made for duplicate orders. This change is considered an enhancement of the operating Quality program.

Change Number	Reason Why Change Does Not Reduce Quality Commitments
17	The originating organizations are the appropriate groups to approve any technical or quality requirement changes. Limiting approval to the originating individuals is unnecessarily restrictive. This change is not considered to decrease the effectiveness of the operating Quality program.
18	Reason Why Change Does Not Reduce Quality Commitments This change is editorial and eliminates redundant text. No operating Quality program change has been made.
19	Reason Why Change Does Not Reduce Quality Commitments This change clarifies the criteria used to review administrative procedures. The addition of text specifically defining the review of these procedures is considered an enhancement of the operating Quality program.
20	Reason Why Change Does Not Reduce Quality Commitments This change clarifies that experience and records relating to standard plant design and procurement (SNUPPS) design may be considered when evaluating a procurement source. The standard plant design is directly applicable to Wolf Creek. No change in the operating Quality program has been made.
21	Reason Why Change Does Not Reduce Quality Commitments This change clarifies that post-receipt testing is one of the verification methods used by KG&E. This change is not considered to decrease the commitments in the operating Quality program.
22	Reason Why Change Does Not Reduce Quality Commitments This change clarifies that the Plant Manager administers the test programs. These programs are still under the jurisdiction of the Director Nuclear Operations.
23	Reason Why Change Does Not Reduce Quality Commitments Text from Section 17.2.11.5 was moved to Section 17.2.11.2 and updated. No operating Quality program change has occurred.

Change Number	Reason Why Change Does Not Reduce Quality Commitments
24	Surveillance test result failures are not controlled through the nonconformance control program. These failures are controlled by an established program in compliance with Technical Specifications. This is not considered to reduce the commitments of the operating Quality program.
25	Reason Why Change Does Not Reduce Quality Commitments Text has been added designating who reviews surveillance test results. The addition of this text is considered an enhancement to the operating Quality program.
26	Reason Why Change Does Not Reduce Quality Commitments Text has been added to discuss control of measuring and test equipment. No operating Quality program change has been made.
27	Reason Why Change Does Not Reduce Quality Commitments This text was originally contained in the response to NRC Question 260.49. The text has been incorporated into Chapter 17. No operating Quality program change has been made.
28	Reason Why Change Does Not Reduce Quality Commitments This change clarifies that other groups besides NPE (such as Procurement) may approve the recommended disposition of nonconformances relating to KG&E-initiated procurement requirements. The recommended disposition of these items is still required to be approved by the responsible organization so operating Quality program commitments have not been reduced.
29	Reason Why Change Does Not Reduce Quality Commitments This change clarifies that the Quality Branch is responsible for auditing, not assuring, the processing of supplier-recommended dispositions. No operating Quality program change has been made.

Change Number	Reason Why Change Does Not Reduce Quality Commitments
30	The title Training Supervisor has been changed to Manager Nuclear Training. This title is reflected in Figure 17.2-2 and Section 6 of the Technical Specifications. No operating Quality program change has been made.

	Reason Why Change Does Not Reduce Quality Commitments
31	The Quality Assurance Committee was disolved prior to receipt of the WCGS Operating License. The NRC was notified of this change in KMLNRC 85-063. This reference to this committee was inadvertently left in the FSAR when Revision 15 was published.

CHAPTER 17.0

QUALITY ASSURANCE

17.2 QUALITY ASSURANCE DURING THE OPERATION PHASE

17.2.0 INTRODUCTION

17.2.0.1 Scope

This chapter of the FSAR sets forth the requirements for establishing and maintaining an operating Quality program for the Wolf Creek Generating Station (WCGS) during the operations phase. The program provides control over activities affecting quality as required by 10 CFR 50, Appendix B, and is structured to comply with NRC Regulatory Guide 1.33.

17.2.0.2 Corporate Policy

Throughout this section Kansas Gas and Electric Company (KG&E) will be refered to as "the operating agent."

The policy of ~~Kansas Gas and Electric Company (KG&E)~~ the Operating Agent is to develop, implement, and maintain the operating Quality program for the WCGS as regulated by provisions of the Nuclear Regulatory Commission (NRC) operating license and amendments thereto. The program is applied to those activities regarding structures, systems, and components necessary to assure: | (2)

1. The integrity of the reactor coolant pressure boundary

2. The capability to shut down and maintain the reactor in a safe shutdown condition

3. The capability to prevent or mitigate the consequences of accidents which could result in offsite exposures comparable to the guideline exposures of 10 CFR 100

17.2.0.3 Program Applicability

The activities presently controlled by the operating Quality program include ~~preoperational testing, startup testing~~, operations, maintenance, refueling and modifications. Also controlled by the operating Quality program ~~are~~ were certain construction completion activities such as component tests, flushing, and hydrostatic tests performed by the ~~KG&E~~ startup organization. The extent of control over these activities as they affect quality is consistent with their importance to nuclear safety. | (1) | (1) | (2)

preoperational and startup testing and

Early implementation of the operating Quality program ~~is~~ was not intended to require activities to be performed earlier than would be the case if they were performed under the Design and Construction QA Program. When structures, systems, or components ~~are~~ were released by the construction forces to the ~~KG&E~~ startup organization, | (0) | (1) | (2)

the ~~KG&E~~ startup forces, and subsequently the operating forces, ~~will~~ start~~s~~ ~~out~~ conduct~~ing~~ their activities under the systems of control which comprise the operating Quality program. (2) (1)

Construction organizations committed to the requirements of the Design and Construction QA Program may provide quality related activities to organization(s) committed to the requirements of the operating Quality program (e.g. procurement and receipt inspection). A description of the QA Program elements controlling these activities ~~can be found~~ was located in the appropriate section(s) of the SNUPPS QA Programs for Design and Construction Manual. The construction organization providing the safety-related activity for the operations/startup applications ~~shall~~ assure that all personnel ~~are~~ were qualified in accordance with the Design and Construction QA Program qualification requirements. Both ~~KG&E~~ Construction and Operations ~~shall be~~ were responsible for establishing procedures to control the interface between the construction organization(s) providing the activity and the using organization(s). (1) (1) (1) (2) (1)

Included within the operating Quality program are the development, control and use of computer code programs. The Nuclear Plant Engineering Division, Nuclear Services Division, and the Plant Staff are responsible for the computer programs used internally. Internal activities associated with verification, documentation, and use of computer programs utilized in safety-related analyses, are accomplished in accordance with documented procedures. Verification that the procedures are being followed and are effective in controlling computer program use is provided by internal audits by the Quality Branch. Assurance that external organizations are controlling activities associated with computer programs used for safety-related analysis is provided through the supplier qualification process, through imposition of requirements in purchase orders and contracts and/or through audits.

17.2.0.4 Special Scope Programs

In controlling activities of the operating agent to the extent consistent with their effect on safety, ~~KG&E~~ normally designates and applies selected quality requirements to fire protection, environmental control, and security. Although not strictly safety-related, the applicable quality controls applied to these special scope programs are described as follows: (2)

Fire Protection	See Appendix 9.5A of the SNUPPS Standard Plant FSAR and Table 9.5-1, WC addenda.
Environmental Controls	See Section 13.5.2.2.8
Site Security	See WCGS Physical Security Plan

See Section 13.1 for a description of persons and organizations performing QA functions.

17.2.1 ORGANIZATION

17.2.1.1 Scope

~~KG&E~~ The Operating Agent has established an organizational structure for quality activities. ~~This~~ Section 17.2.1 identifies the organizational structure; management positions and responsibilities; and delegation of authority for the development, implementation, and maintenance of the operating Quality program. ~~KG&E shall~~ The Operating Agent retains responsibility for the establishment and execution of the operating Quality program, although certain program activities may be delegated to others. The organizational structure of ~~KG&E's~~ the operating agent's top management is shown in Figure 17.2-1. The organizational structure responsible for implementing the operating Quality program is shown in Figure 17.2-2. The organizations of the WCGS staff and the Quality organization are shown in Figures 17.2-1 and 17.2-2, respectively.

17.2.1.2 Responsibility for Quality Program

17.2.1.2 President and Chairman of the Board

page 17.2-4 thru 46 will be deleted

The President and Chairman of the Board is responsible for promulgating quality program requirements. He has responsibility for quality assurance, engineering, procurement, configuration management, construction, and operation of the WCGS. He endorses KG&E's Quality Assurance policy statement and delegates the authority necessary to implement this policy. He directs all KG&E employees who work in direct support of nuclear operations activities or interface with nuclear operations to comply with the operating Quality program.

17.2.1.2a Group Vice President - Technical Services

The Group Vice President - Technical Services reports directly to the President and Chairman of the Board. The duties and responsibilities of the Group Vice President - Technical Services include being in charge of all technical aspects of Kansas Gas and Electric Company. These technical aspects encompass operations, transmission and distribution, engineering and construction. This includes the construction and operation phases of WCGS.

17.2.1.3 Vice President - Nuclear

The Vice President - Nuclear, under the direction of the Group Vice President - Technical Services is responsible for the implementation of KG&E's Quality Assurance Policy and the Quality Assurance Programs which devolve from this policy. He authorizes staffing of the Quality Branch, the WCGS, and the engineering and services divisions which support the WCGS. He is responsible for directing activities which support the design, construction, and operation of the WCGS and for coordinating supportive activities performed by other internal and external groups which are not under his direct administrative control. He has corporate responsibility for the operation, physical control, and security of the WCGS.

17.2.1.~~4~~3.~~4~~ Quality Branch Personnel Independence (1)

The authorities and duties of QA and QC personnel and other organizations performing quality verification functions are clearly established in written procedures. Such persons have sufficient authority and organizational freedom to identify quality problems; to initiate, recommend, or provide solutions; and to verify corrective action. Assurance of quality by auditing, inspecting, checking, or otherwise verifying program activities is by personnel independent of the individual or group performing the specific activity.

17.2.1.5 Manager Nuclear Plant Engineering

The Manager Nuclear Plant Engineering reports to the Director of Engineering and Technical Services for overall program direction. He is responsible for station modifications, additions, engineering studies, and design reviews which are conducted at the general office or subcontracted by the general office to an outside organization.

17.2.1.6 Manager Nuclear Services

The Manager Nuclear Services reports to the Director of Engineering and Technical Services for overall program direction. He is responsible for providing services in the areas of licensing, fuels management, fuel procurement, and safety analysis. He is responsible for home office support of the plant in nuclear engineering, chemistry, health physics, and environmental areas. (3)

17.2.1.7 Director Nuclear Operations

The Director Nuclear Operations reports to the Vice President-Nuclear for overall program direction. He is responsible for the operations, training and startup departments. The Plant Manager, the Manager Operations Support, Supervisor Project Planning and Controls, and the Manager Nuclear Training report to the Director Nuclear Operations for overall program direction. The Director Nuclear Operations is also responsible for preparing those portions of the WCGS operating and maintenance budget not specifically assigned to other divisions.

17.2.1.7.1 Plant Manager

The Plant Manager reports to the Director Nuclear Operations. He has the prime responsibility

page 17.2-5a will be deleted

17.2.1.8 Director - Purchasing

The Director - Purchasing reports administratively to the Group Vice President - Administration who reports to the President and Chairman of the Board. The Director - Purchasing also has reporting responsibilities to the Group Vice President - Technical Services for materials, systems, components and parts (not delegated to outside organizations) that are needed to support WCGS. He is responsible for issuing purchase orders and contracts, for the commercial content of those documents, the financial/commercial qualification of vendors, and for processing invoices. (3)

17.2.1.9 This Section has been deleted.

17.2.1.~~10~~ 4 Safety Review Committees

Safety review committees shall be established at the WCGS (the Plant Safety Review Committee) and at the ~~KG&E General~~ SNUPPS Office (the Nuclear Safety Review Committee) to provide independent review of those items required by the WCGS Technical Specifications. Committee membership and duties are described in the Administrative Controls Section of the Technical Specifications. (5)

page 17.2-6a will be deleted (3)

17.2.2 QUALITY ASSURANCE PROGRAM

17.2.2.1 Scope

~~KG&E~~ The Operating Agent has established an operating Quality program which controls activities affecting quality. The program encompasses those quality activities necessary to support the operating phase of the WCGS. The total operating Quality program complies with 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants" and generally follows the guidance of Regulatory Guide 1.33. Several alternate methods of meeting Regulatory Guide 1.33 are described in this chapter and in Appendix 3A. (2)

17.2.2.2 Identification of Safety-Related Items

The scope and activity applicability of the operating Quality program are described in Section 17.2.0. Safety-related structures, systems, and components are identified in Table 3.2-1 of the Standard Plant FSAR. This list includes structures, systems, and components identified as safety-related ~~during the design and construction phase~~ and may be modified as required ~~during operations~~, consistent with their importance to nuclear safety. Table 3.2-1 is maintained current by the Manager Nuclear Services with changes to the table being approved by the Director Quality, Director of Engineering and Technical Services, and Director Nuclear Operations. (1)

~~During the operational phase~~ the operating Quality program is the governing quality assurance program for safety-related structures, systems, components and consumables. The programs identified under the "Quality Assurance" heading of Table 3.2-1 ~~are~~ were those utilized during the design and construction phase. Should safety-related equipment or services be procured from Bechtel, Westinghouse, or others during the operating phase, quality assurance requirements will be determined and imposed in accordance with Sections 17.2.4 and 17.2.7. (1) (1)

17.2.2.3 Operating Quality Program Implementation

The operating Quality program ~~shall be~~ was implemented at least 90 days prior to fuel loading. The operating Quality program ~~shall~~ will be implemented throughout the operating life of the WCGS. Special equipment, environmental conditions, skills, or processes ~~will be~~ are provided as necessary to demonstrate effective implementation of the operating Quality program. (1) (1) (1)

Implementation of the operating Quality program ~~by KG&E~~ is directed towards assurance that operating ~~phase activities~~ and maintenance activities are conducted under controlled conditions and in compliance with applicable regulatory requirements, including 10 CFR 50, Appendix B. Management responsible for conducting safety-related activities ~~shall be~~ are responsible for providing approved procedures prior to initiating the activity. (2) (4) (1) (4)

1. Quality Policy

The governing policy statement of the operating Quality program is approved by the President and Chairman of the Board and is contained in the ~~Wolf Creek Project~~ Nuclear Department Policy Manual. (6)

2. Quality Program Manual (QPM)

The manual (QPM) that provides instruction to the Quality Branch for the definition and conduct of Branch responsibilities as described in the operating Quality program and assigned by the ~~Wolf Creek Project~~ Nuclear Department Policy Manual. The introduction to the QPM includes a governing policy statement by the KG&E Group Vice President Technical Services and Vice President-Nuclear. (6)

3. ~~Wolf Creek Project~~ Nuclear Department Policy Manual (~~WCP~~ ND PM) (6)

The ~~WCPPM~~ NDPM defines project policy relative to the management of the ~~Wolf Creek Project~~ Nuclear Department. Specific responsibilities and authorities are defined for the various individuals and organizations involved. The manual also describes the operating Quality program which is applicable to all ~~KG&E~~ Nuclear Department personnel assigned to the ~~project~~ plant. This manual and changes thereto are approved by the Vice President-Nuclear. (6) (2) (7)

4. Procedures Manuals

The Nuclear Department General Procedures Manual, the WCGS Procedure Manuals and the KG&E Procedures Manual provide control for ~~activities~~ activities covered by the operating Quality program. (2)

Table 17.2-1 shows a listing of controlled procedure manuals. These manuals contain mandatory requirements which must be implemented by responsible organizations and individuals.

Table 17.2-2 lists areas of operating Quality program implementing procedural coverage and indicates the related criteria of 10 CFR 50, Appendix B, covered by each area. This listing represents general areas of procedural coverage. Provisions for procedure consolidation, separation, deletions, additions, or minor program changes do not permit including an absolute listing of implementing procedures.

Table 17.2-3 lists quality program commitments to Regulatory Guides and endorsed codes and standards.

Operating Agent

17.2.2.5 Control of ~~KG&E~~ Contractors

The Operating Agent ~~KG&E~~ may employ the services of architect-engineers, NSSS suppliers, fuel fabricators, constructors, and others which provide or augment ~~KG&E~~ efforts ~~during the operational phase~~. These organizations shall be required to work under a quality assurance program to provide control of quality activities consistent with the scope of their assigned work. The quality assurance programs of such contractors or consultants shall be subject to review, evaluation, and acceptance by the ~~KG&E~~ Quality Branch prior to initiation of activities affected by the program. (2) (2)(1) (2)

17.2.2.6 Operating Quality Program Verification of Implementation

Achievement of the requirements of the operating Quality program shall be verified through independent and integral control activities. The Quality Branch under the Director Quality shall audit ~~general~~ home office internal and interfacing quality activities and shall conduct audits and surveillance of the operating plant. These audits shall assure overall implementation verification of the operating Quality program. Quality Branch personnel will perform audit, surveillance and inspection of quality activities performed by the operating organization, consultants, suppliers, and other ~~KG&E~~ personnel. In addition, an annual independent assessment of the effectiveness of the operating Quality program shall be made under the direction of the Vice President - Nuclear. (5) (2) (7)

17.2.2.7 Personnel Training and Qualification

General indoctrination and training programs shall be provided for the general office and plant site personnel to assure that they are knowledgeable regarding quality procedures and requirements. The requirements for training of WCGS personnel are described in Section 13.2. The training of plant operating personnel is the responsibility of the ~~Plant~~ Manager Nuclear Training ~~Supervisor~~. Records of training shall be maintained to demonstrate compliance with the qualification requirements of 10 CFR 55 and ANSI N18.1/ANS-3.1, "Selection and Training of Nuclear Power Plant Personnel". ~~KG&E~~ Operating Agent personnel performing complex, unusual, or potentially hazardous work shall be instructed in special indoctrination or briefing sessions. Emphasis shall be on special requirements for safety of personnel, radiation control and protection, unique features of equipment and systems, operating constraints, and control requirements in effect during performance of work. Where required by codes and standards, personnel are trained or qualified according to written procedures in the principles and techniques of performing specific activities described in sections 17.2.9, 17.2.10, and 17.2.11 of this chapter. (30) (2)

Training will be conducted in a time frame adequate to allow personnel to prepare for their job responsibilities. Retraining will be scheduled as necessary to assure adequate skills are maintained. ~~KG&E~~ personnel assigned to perform specialized work tasks or to augment the plant staff for major modifications and contractor personnel performing work onsite shall receive indoctrination in the following subjects as required prior to commencing work: (2)

1. Safety rules

2. Health-physics control and monitoring of radiation exposure

17.2.3 DESIGN CONTROL

17.2.3.1 Scope

The design, modification, addition, and replacement of safety-related structures, systems, and components at the WCGS shall be controlled to assure that appropriate measures are implemented and to assure that "as-built" quality is not degraded. The plant design is defined ~~by KG&E, NSSS and the A/E~~ in selected supplier design drawings and specifications which illustrate the general arrangement and details of safety-related structures, systems, and components and define the requirements for assuring their continuing capability to perform their intended operational or safety design function. (2)

Design activities shall include the correct translation of regulatory requirements and design bases into specifications, drawings, written procedures, and instructions (design output) that define the design. Design analyses regarding reactor physics, stress, seismic, thermal, hydraulic, radiation, and accident analyses, used to produce design output documents, shall be performed when appropriate. Design verification shall be performed, and "reviews of design" will be done to familiarize ~~KG&E~~ Operating Agent personnel with design features. (2)

Design activities shall also include 1) reviewing the applicability of standards; 2) reviewing commercial or previously approved materials, parts, or equipment for suitability of application; 3) reviewing the compatibility of materials used in the design; 4) reviewing the accessibility of equipment and components for inservice inspection, maintenance, and repair; 5) specifying criteria for inspection and test; and 6) reviewing and approving procedures for special processes, and verification of computer codes used in the design process.

Procedures shall establish requirements, assign responsibilities and provide control of design activities to assure performance in a planned, controlled and orderly manner.

17.2.3.2 Design Responsibilities

Design, including related procurement efforts, may be carried out by the WCGS staff, Nuclear Plant Engineering, Nuclear Services, or outside organizations. Generally, design changes will be performed or contracted by Nuclear Plant Engineering.

17.2.3.3 Design Criteria

Design requirements and changes thereto shall be identified, documented, reviewed and approved to assure incorporation of appropriate quality standards in design documents. Design requirements and quality standards shall be described to an appropriate level of detail in design criteria. Any exception to quality standards will be listed. Criteria for modifications to structures, systems and components shall consider, as a minimum, the design bases described in the Standard Plant FSAR and Wolf Creek FSAR Addendum. Design criteria shall ~~be reviewed~~ by the Quality Branch, ~~for~~ seismic and quality group classification, selection of quality standards, and deviations from quality standards for acceptability. All design criteria shall be satisfied in the design.

17.2.3.4 Design Process Controls

The organization performing design shall have responsibility for design control unless specified otherwise. Control of design shall be specified in procedures. These procedures shall include instructions for defining typical design requirements; communicating needed design information across internal and external interfaces; preparing, reviewing, approving, revising, and performing design reviews and reviews of design; and controlling field changes. Management Systems Document Control Section prepares procedures for releasing, distributing and maintaining design documents in ~~KG&E's~~ the Operating Agents scope.

Design control shall involve measures which include a definition of design requirements; a design process which includes design analysis and delineation of requirements through the issuing of drawings, specifications, and other design documents (design outputs); and design verification.

The design process shall establish controls for releasing technically adequate and accurate design documents in a controlled manner with a timely distribution to responsible individuals and groups. Documents and revisions shall be controlled through the use of written procedures which apply to the issuer, distributor, and user to prevent inadvertent use of superseded documents. Document control procedures shall govern the collection, storage, and maintenance of design documents, results of design document reviews, and changes thereto.

Design documents subject to procedural control include, but are not limited to: specifications, calculations, computer

17.2.3.5 Design Interface Control

The design interfaces between organizations shall be identified and controlled by policy and procedures which shall address the division of design responsibility between the WCGS staff, Nuclear Plant Engineering and Contractors. Procedures and distribution lists shall specify the lines of communication and distribution of information. Procedures shall specify the organization responsible for design reviews and approval for each design organization. Review, approval, release and distribution of these policies and procedures, and revisions thereto, shall be controlled.

17.2.3.6 Design Review and Verification

The design process shall include design verification by qualified persons to assure that the design is adequate and meets specified design input. Design control procedures shall specify requirements for the selection and accomplishment of a design verification program. The depth of the program shall be commensurate with the importance of the system or component to the safety, complexity of the design, and similarity ~~of design~~ to previous designs. (4)

Design verification shall be either by testing, design review, alternate calculation, qualification testing, or by a combination of these. If the verification method is only by test, the following requirements shall be met:

1. Procedures shall provide criteria that specify when verification should be by test.

2. Prototype, component or feature testing shall be performed as early as possible prior to installation of plant equipment, or prior to the point when the installation would become irreversible.

3. Verification by test shall be performed under conditions that simulate the most adverse design conditions as determined by analysis.

Design verification shall be performed by qualified verifiers who are not directly responsible for the design or the design change, except in unusual cases, the designer's supervisor may perform the verification if: he is the only technically qualified individual, the need for him to perform the review is approved and documented in advance by the supervisor's management, and QA audits monitor the frequency of the supervisor's review to guard against abuse.

Design verification will normally be performed prior to release for procurement, manufacture, installation, or use by another organization in design activities. Exceptions shall

be justified and documented. Procedures shall control the justification of exceptions and the completion of the verification of all affected design output documents prior to relying on the component, system or structure to perform its function.

Procedures shall identify the responsibilities of the verifier, the features to be verified, the pertinent considerations to be verified, and the documentation required.

Special reviews shall be performed when uniqueness or special design considerations warrant.

Design analyses shall be sufficiently detailed as to purpose, method, assumptions, design requirements, references and units to permit an independent review by a technically qualified person. Computer codes shall be verified to be certified for use, and it shall be verified that their intended purpose is specified.

Additionally, the Operating Agent ~~AG&E~~ shall perform reviews of selected design documents for sub-contracted design to become familiar with design features. (2)

Action shall be initiated to resolve errors found in the design process and to assure that changes are controlled. Such actions shall be documented.

17.2.3.7 Design Changes

Changes to plant design may be necessary to correct operational deficiences, incorporate improvements, or to comply

with new regulatory requirements. Design changes are defined to mean 1) planned changes in the basic plant design which modify the plant response, general design criteria, and specification requirements; 2) the substitution of equivalent hardware or the substitution of nonsafety-related parts or components into safety-related components or systems; and 3) any noneditorial change to a design document. Changes in the WCGS basic design shall be aimed at improving safety, performance, maintainability, reliability, or inspectability. An engineering evaluation assures that these changes are consistent with the performance requirements specified in existing design documents. Design changes are reviewed by cognizant organization through the plant modification request process. (9)

Procedures shall specify requirements for the review and approval of design changes by the organizations that performed the original design, if appropriate. Design activities may be delegated to others provided they have access to background and technical information. Design changes shall be communicated to appropriate plant personnel when such changes may affect the performance of their duties.

17.2.3.8 Design Review Committees

Independent of the responsibilities of the design organization, the requirements of the Plant Safety Review Committee (PSRC) and the Nuclear Safety Review Committee (NSRC) as specified in the Administrative Controls Section of the Technical Specifications, shall be satisfied. Design changes which involve a modification or a creation of basic design criteria require a safety evaluation and review, and concurrence by the PSRC. Design changes which involve the substitution of hardware require a safety evaluation by the PSRC and approval by the Plant Manager; however, those changes which involve an unreviewed safety question or change in Technical Specifications also require a review and concurrence by the NSRC. When design is performed by an outside organization, the Manager Nuclear Plant Engineering shall perform or coordinate a review for operability, maintainability, inspectability, SAR commitment compatability, and design requirements imposed by plant equipment. In addition, the Manager Nuclear Plant Engineering shall identify and control design interfaces and coordinate the design process between internal divisions and the outside organization(s).

When required, safety analyses which consider the effect of the design as described in the design documents may be performed ~~by KG&E or outside organizations~~. These analyses shall provide the basis for the PSRC safety evaluations which are (2)

17.2.4 PROCUREMENT DOCUMENT CONTROL

17.2.4.1 Scope

Procurement document control applies to documents employed to procure safety-related materials, parts, components, and services required to modify, maintain, repair, test, inspect, or operate the WCGS. ~~KG&E~~ the Operating Agent shall control procurement documents by written procedures which establish requirements and assign responsibility for measures to assure that applicable regulatory requirements, design bases, and other requirements necessary to assure quality are included in documents employed for the procurement of safety-related materials, parts, components, and services. (2)

17.2.4.2 Procurement Responsibility

Responsibility for procurement does (the Operating Agent's) not reside in a single group but is a joint effort of ~~KG&E~~ Nuclear divisions (WCGS staff, Nuclear Plant Engineering, ~~and~~ Nuclear Services, (and Procurement and Material Management), Quality, and the Purchasing Department. These groups have responsibility for technical content, quality requirements, and commercial provisions. (2) (4) (10)

17.2.4.3 Procedural Control

Written procedures shall include controls, as applicable, for the preparation, content, review, approval, and processing of the following types of procurement documents:

1. Purchase Requisitions
2. Letters of Intent
3. Purchase Orders and Contracts

17.2.4.4 Quality Classification

Each item or service to be procured is evaluated ~~by the procurement document originator~~ to determine whether or not it performs a safety-related function or involves activities which affect the function of safety-related materials, parts, or components and to appraise the importance of this function to plant or public safety. For those cases where it is unclear if an individual piece (i.e., part of a safety-related structure, system, or component or service) is governed by the ~~KG&E~~ operating Quality program, an engineering evaluation shall be conducted. The evaluation shall classify the safety relationship of the service or questionable component parts or items of safety-related structures, systems, or components. The evaluation shall be (11) (2)

documented for future reference. Evaluations of this nature shall be reviewed by the Quality Branch to assure that quality requirements have been satisfied.

17.2.4.5 Quality Requirements in Procurement Documents

Procurement document control measures shall assure that appropriate regulatory requirements, design bases, and other requirements are included in the procurement process. Originating and reviewing organization procedures shall require that the following be included or invoked by reference in procurement documents, as appropriate:

1. Requirements that the supplier provide a description of his quality assurance program which implements the applicable criteria of 10 CFR 50, Appendix B, and which is appropriate for the particular type of item or service which is to be supplied. The description of the Suppliers QA program is reviewed by ~~KG&E's~~ the QA organization and resulting comments, if any, are resolved with the supplier prior to releasing the supplier to begin work in any area impacted by the comments. Certain items or services will require extensive controls throughout all stages of manufacture or performance, while others may require only a limited control effort in selected phases. These requirements are not applicable to off-the-shelf or commercial-grade items which utilize a supplier's standard or proven design, or his procedures to meet given technical and quality requirements and whose fulfillment of the technical and quality requirements are accepted by receiving inspection.

(2)

(12)

Comments resulting from the review that may require additional supplier control shall be identified.

2. Basic administrative and technical requirements, including drawings, specifications, regulations, special instructions, applicable codes and industrial standards, and procedural requirements identified by titles and revision levels; special process instructions; test and examination requirements with corresponding acceptance criteria; and special requirements for activities such as designing, identifying, fabricating, cleaning, erecting, packaging, handling, shipping, and storing.

3. Requirements for supplier surveillance, audit, and inspection, including provisions for ~~KG&E~~ or Agent (Engineering) access to facilities and records and for identification of witness and hold points.

(2)

4. Requirements for extending applicable requirements of the Operating Agents ~~KGandE~~ procurement documents to lower-tier suppliers and subcontractors. These requirements shall include right-of-access to subsupplier facilities and records by the Operating Agents ~~KG&E~~. (2) (2)

5. Requirements for supplier reporting to the Operating Agents ~~KG&E~~ certain nonconformances to procurement document requirements and conditions of their disposition. (2)

6. Documentation requirements, including records to be prepared, maintained, submitted, or made available for review, such as drawings, specifications, procedures, procurement documents, inspection and test records, personnel and procedural qualifications, chemical and physical test results, and instructions for the retention and disposition of records.

7. Requirements for supplier-furnished records, including:

   a. Documentation that identifies the purchased item and the specific procurement requirements (e.g., codes, standards, and specifications) met by the item.

   b. Documentation identifying any procurement requirements that have not been met.

   c. A description of those nonconformances from the procurement requirements dispositioned "accept as is" or "repair" or "redesign."

8. Requirements for the reporting of defects and ~~Applicability of 10 CFR 21 Reporting Requirements~~. noncompliances including 10CFR21. (13)

Procurement document control preparation measures shall further provide that purchased safety-related parent components, piece parts, materials, and services are purchased to specifications and codes equivalent to those specified originally or those specified by a properly reviewed and approved revision; are packaged and transported in a manner to assure nondegradation of quality during transit; and are properly documented to show compliance with applicable specifications, codes, and standards.

Reviews of purchasing documents by Quality Branch personnel shall verify that quality requirements are correctly stated, verifiable, and controllable; that acceptance/rejection criteria are included; and that the documents have been prepared, reviewed, and approved in accordance with ~~KG&E's~~ operating Quality program requirements. (14) (2)

or referenced

17.2.4.6 Purchase Requisitions

Purchase Requisition forms shall be used to initiate the procurement of safety-related materials, parts, components and services. Procurements shall be initiated by Wolf Creek staff, Nuclear Plant Engineering, Nuclear Services, or Quality Branch personnel.

Purchase Requisitions shall include or invoke specifications, bills of material, drawings, catalog number, full description, or item identification as applicable. Commercial items shall rely on proven design and may utilize verification methods by the purchaser in lieu of supplier controls. (15)

Purchase Requisitions for safety-related materials, parts, components, or services shall be reviewed by engineering personnel (WCGS staff engineers, Nuclear Plant Engineering or Nuclear Services) and Quality Branch personnel as detailed in the applicable procedures to verify that adequate technical and quality requirements, respectively have been specified, ~~unless the procurement is a duplicate order invoking identical technical and quality requirements which have previously been reviewed and approved~~. The reviews for technical and quality requirements shall be by someone other than the originator of the requisition. (16)

17.2.4.7 Letters of Intent

Letters of Intent may be utilized with suppliers of materials, parts, components, and services for the purpose of reserving schedule space prior to the resolution of the requirements to be included in a purchase order or contract. However, no activities shall begin until an approved purchase order or contract is executed. Letters of Intent shall be issued by the Purchasing Department.

17.2.4.8 Purchase Orders and Contracts

Purchase Orders and Contracts are prepared and issued by the Purchasing Department, and establish for the vendors the technical and quality requirements which must be met. These documents also establish the commercial conditions (cost, schedule, warranty, insurance, etc.) for the procurement action.

Purchase Orders and Contracts shall accurately reflect the technical and quality requirements established by the Requisition. If during negotiations with the vendor it becomes necessary or commercially desirable to change technical or quality requirements, such changes must be presented to the organization ~~individuals~~ who approved the original requirements for approval. If the changes cannot be approved, a different vendor shall be selected. (17)

17.2.4.9 Purchase Order Award

During the WCGS operating life, procurement may be made with the following:

1. Suppliers judged capable (prior to award) of providing items or services in accordance with procurement document requirements and a quality assurance program compatible with the item or service procured;

2. Suppliers and others in possession of hardware manufactured prior to award and whose acceptability can be determined by receiving inspection, an examination of quality verification documentation, or other suitable means;

3. Suppliers of off-the-shelf or commercial-grade items able to be ordered solely on the basis of published specifications; and

4. Outside organizations working under the ~~KG&E~~ operating Quality program. (2)

~~Regardless of the basis for the acceptability of the procurement source, prior to the issuance of a purchase order or execution of a contract, a verification of the supplier/outside organization acceptability shall be documented~~. (18) A purchase order or contract may be issued prior to an assessment of supplier capability, provided a prohibition on safety-related work is imposed and if the purchase order is made contingent upon becoming qualified. Such suppliers shall be released to begin safety-related work when evaluated to be an acceptable procurement source. The process by which suppliers (requiring a preaward evaluation) are judged a capable procurement source is described in Section 17.2.7. (18)

17.2.4.10 Document Distribution

To support the control of purchased materials (see 17.2.7) copies of purchase orders and other appropriate procurement documents shall be forwarded to the applicable receiving and

acceptance point. Departments receiving or utilizing procured items or services shall establish measures to maintain and control procurement documents until the items or services are received and accepted. These documents shall include purchase orders, drawings and specifications, approved changes, and other related documents.

17.2.4.11 Change Controls

Additions, modifications, exceptions, and other changes to procurement document quality and technical requirements shall require a review equivalent to that of the original document and approval by the ~~originator or the~~ originating division~~'s approval authority.~~ Commercial consideration changes shall not require review and concurrence by the originator. (17)

Procurement documents regarding safety-related materials, parent components, and piece parts shall specify, as a minimum, the original technical requirements or those specified by a properly reviewed and approved revision. Quality standards imposed shall comply with applicable administrative quality requirements consistent with the extent of the original control. The Quality Branch shall review and approve specifications and purchase requisitions to verify inclusion of proper quality standards.

Procurement documents covering safety-related spare parts shall impose standards consistent with those specified for the original equipment or those specified by a properly reviewed and approved revision. A spare parts inventory shall be established using spare parts data report forms or equivalent, which describe the technical and quality requirements to be imposed. These data report forms address documentation, inspection, storage levels, preventive maintenance, and applicable quality assurance manuals and may be used to establish the requirements for reordering of identical spare parts. The procurement of spare or replacement parts important to safety will be subject to the quality program controls in effect at the time of the procurement.

17.2.4.12 Records

Procurement records for materials, parts, and components will be maintained.

17.2.5 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

17.2.5.1 Scope

The quality activities associated with the operating phase shall be accomplished in accordance with documented instructions, procedures, drawings, or checklists. The degrees of control imposed shall be consistent with the relative importance of the activity to nuclear safety. The instruction shall specify the methods for complying with 10 CFR 50, Appendix B.

17.2.5.2 Preparation Requirements

The ~~KG&E~~ operating Quality program shall control activities affecting quality by providing measures for: (2)

1. The preparation of procedures, instructions, specifications, drawings, or checklists of a type appropriate to the activity and its importance to safety;

2. The inclusion in these documents of quantitative and qualitative acceptance criteria for verifying that an activity has been satisfactorily accomplished;

3. The approval of these documents by responsible personnel prior to accomplishing an activity; and

4. The use of approved drawings, procedures, instructions, or checklists to accomplish an activity.

17.2.5.3 Contractor Controls

Procurement documents shall require outside organizations to have appropriate instructions, procedures, specifications, and drawings to meet the requirements of the operating Quality program.

17.2.5.4 Operations Documents

The WCGS staff and other responsible divisions shall provide written procedures and drawings as required for the operating phase. These procedures shall prescribe those ~~KG&E~~ company activities which affect the function of safety-related structures, systems, and components. (2)

17.2.5.5 Review and Approval

The approval, issue, and control of the various implementing procedures, manual, and policy are as described in Sections 17.2.2 and 17.2.6. Plant procedures affecting the function of safety-related structures, systems, and components shall be reviewed by the PSRC in accordance with the approved WCGS administrative procedures as part of their responsibility to assure that day-to-day operating activities are conducted safely.

Proposed procedure revisions which involve a change in the Technical Specifications or an unreviewed safety question shall be referred to the Nuclear Safety Review Committee by the PSRC following its review. Temporary changes to procedures shall be controlled as described in the Technical Specifications.

Table 17.2-2 lists those types of activities under the control of the plant and other ~~KG&E organizational procedures~~ operating agent's procedures. Procedures prepared for the KG&E procedures manual and administrative and inspection procedures for the WCGS Procedures Manual shall be reviewed by the Quality Branch for compliance with operating Quality program requirements. | (2)

17.2.6 DOCUMENT CONTROL

17.2.6.1 Scope

Documents and their revisions which control activities affecting safety-related structures, systems, and components shall be prepared, reviewed by knowledgeable individuals, and approved by authorized personnel prior to release or issuing in accordance with written approved procedures.

Departments and organizations responsible for program implementing documents shall be required to provide and assure the necessary review and approval for instructions, procedures, specification, and drawings. Reviews and approvals assure that issued documents include proper quality and technical requirements, and are correct for intended use. Individuals or groups responsible for preparing, reviewing, and approving documents and revisions thereto shall be identified in written procedures.

Responsibility for performing controlled document distribution is shared by various divisions, including but not limited to Plant Operations, Quality Branch , Procurement (see ~~Subs~~ection 13.1 ~~17.2.4~~), Nuclear Plant Engineering and Management Systems. Management Systems is responsible for the overall project document control program. (3)

17.2.6.2 Preparation Controls

Documents describing the ~~NGSE~~ operating Quality program shall be controlled to an extent which considers the document type, its importance to safety, and the intended use of the document. Requirements of the operating Quality program shall be adhered to for the preparation, review, approval, and revision of procedures, instructions, or drawings. (2)

The controls over the issuing of documents shall provide for the availability of documents at the point of use prior to commencing an activity and the prompt transmittal of approved changes for incorporation into subsequent revisions. Measures shall be established to prevent the inadvertent use of superseded documents.

Types of documents which shall be controlled include:

a. Technical Specifications;

b. Design documents such as drawings, specifications, calculations and analyses, and documents related to computer codes;

c. Procurement documents;

d. Nonconformance reports;

e. Instructions and procedures for activities such as fabrication, construction, modification, installation, testing, inspection and operation;

f. As-built drawings;

g. ~~Wolf Creek Project~~ Nuclear Department Policy Manual; (6)

h. Wolf Creek Generating Station Procedures Manual (which includes administrative procedures);

i. KG&E Procedures Manual;

j. FSAR;

k. Quality Program Manual; and

l. Topical reports prepared by ~~KG&E~~ the Operating Agent or prepared by others exclusively for ~~KG&E's~~ the Operating Agent's use. (2) (4)

Control of documents shall be defined by a method ~~of control~~ consistent with the importance of the document. Documents shall be identified and distribution lists shall identify document holders. Acknowledgement of receipt of selected documents, incorporation of revisions, and control of obsolete documents shall be required of the document receiver or provided by the distributor. In addition, the distributors of these documents shall maintain a master list of the documents showing the effective revision date of each.

17.2.6.3 Change Control

Changes to documents shall be reviewed and approved where practical by the same department, group, or organization that performed the original review and approval; however, The Operating Agent ~~KG&E~~ may assume or delegate this responsibility. Organizations which review and approve documents shall have access to pertinent information and knowledge of the intent of the original document. | (2)

17.2.6.4 Distribution Control

The Plant Manager shall be responsible for assuring the issuing of controlled documents generated or received onsite and for which plant personnel have the preparation and final approval or external interface responsibility. Similarly, the Manager of Management Systems shall be responsible for assuring the issuing of controlled documents generated or received at the home office for which home office personnel have preparation and final approval or external interface responsibility.

17.2.6.5 Processing and Retention Controls

Administrative procedures shall specify the requirements for the processing and maintenance of records. Procedures shall also be established to control the distribution of instructions, procedures, and drawings governed by the operating Quality program. WCGS staff and other ~~KG&E~~ Operating Agent organizations shall assure that current documents are distributed to and used at the location where the prescribed activity is performed. Clearly identified controlled copies of documents shall be used to perform an activity. | (2)

17.2.6.6 Procedure Review

The review by the Quality Branch of procedures which apply to maintenance, modifications and inspections will verify that needed inspections, the responsibility for performing the inspections, and documentation of the inspection results are provided for. The Quality Branch review will also verify that written procedures/instructions establish the inspection requirements, methods of inspection and acceptance criteria.

Safety related Administrative procedures shall be reviewed by the Quality Branch for compliance with Operating Quality program requirements. | (19)

17.2.7 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

17.2.7.1 Scope

Materials, equipment, and services procured for the WCGS shall be required to conform to procurement documents as prescribed in Section 17.2.4. Provisions, including written procedures shall be established to control quality activities associated with the procurement of material, equipment, and services including:

1. The preparation, review, and change control of procurement documents as described in Section 17.2.4;

2. Procurement source evaluation and selection;

3. Bid evaluation and award;

4. Verification activities (surveillance, inspection, and audit) required by the purchaser;

5. Control of nonconformances as described in Section 17.2.15;

6. Corrective action regarding procurement as described in Section 17.2.16;

7. Material, equipment, and service acceptance;

8. Control of quality assurance records;

9. Audits of the procurement program as described in Section 17.2.18.

17.2.7.2 Source Evaluation and Selection

Provisions shall be made, as appropriate, for supplier evaluations which assess their capabilities prior to award by 1) source evaluation; 2) review for objective evidence of quality; or 3) a review of supplier history. When evaluations are performed, the assessment of a supplier's capability shall be specific regarding the procured item, commodity, or service and the supplier's ability to provide the items or services in accordance with procurement document requirements. The evaluation which provides the bases for supplier selection shall be documented and filed. Suppliers of hardware and services which are manufactured prior to award, considered an off-the-shelf item, or implemented under the ~~KG&E~~ operating Quality program or surveillance program may not require preaward source evaluation or audits to assure quality. (2)

Procurement source evaluation and selection involves the Quality Branch, Nuclear Plant Engineering Division, Nuclear Services Division, the Purchasing Department and the WCGS staff. These organizations participate in the qualification evaluations of suppliers in accordance with written procedures.

Measures for the evaluation and selection of procurement sources shall be specified in procedures and shall vary depending on the complexity and relative importance to safety of the item or service. When procurement source evaluations are appropriate, the information to be considered shall include one or more of the following:

1. Experience of users of identical or similar products of the prospective supplier. NRC Licensee Contractor and Vendor Inspection Program (LCVIP) reports, ASME Certificates of Authorization, Coordinating Agency for Supplier Evaluation (CASE) Register listing, or ~~NCIG~~ records accumulated in previous procurement actions, and ~~NCIG~~ product operating experience may be used in this evaluation. When an LCVIP letter of confirmation or CASE register is used to establish a suppliers qualification, the documentation will identify the "letter" or "audit" used. Supplier history shall reflect recent capability. Previous favorable quality experience with suppliers may be an adequate basis for judgments attesting to their capability.

   including SNUPPS design

2. An evaluation of the supplier's current quality records supported by documented qualitative and quantitative information which can be objectively evaluated. This may include review and evaluation of the supplier's QA Program, Manual, and Procedures, as appropriate, and responses to questionnaires.

3. A source evaluation of the supplier's technical and quality capability as determined by a direct evaluation of facilities and personnel (audit, surveillance, trip report) and quality assurance program implementation.

Procurement source evaluations involve a review of technical and quality considerations to an extent considered appropriate by each participant. Technical considerations include the design or manufacturing capability and technical ability of suppliers to produce or provide the design, service, item, or component.

17.2.7.3 Bid Evaluations and Award

Quality Branch, Nuclear Services, Nuclear Plant Engineering, Purchasing and the WCGS staff, as appropriate, shall perform bid evaluations in accordance with procedures. These organizations shall initiate and coordinate bid evaluation activities for those proposals received in response to procurement documents initiated by them.

Bids or proposals shall be evaluated by the originating organization for conformance to procurement document requirements. The Quality Branch shall review proposals for conformance to quality requirements.

17.2.7.4 Bidder Exceptions to Purchase Requirements

Exceptions to procurement document requirements requested by bidders shall be evaluated by the responsible organization(s). Unacceptable conditions identified in bid evaluations shall be resolved, or if the bidder cannot or will not resolve the unacceptable condition, the bidder will be rejected and another bidder selected.

17.2.7.5 Preaward Meetings

The Purchasing Department and the originating organization shall take steps to establish an understanding of the procurement document requirements with the supplier. Meetings or other forms of communication may be held to establish the intent of ~~KG&E~~ the operating Agent in monitoring and evaluating supplier performance. The depth and necessity of these activities is a function of the uniqueness, complexity, frequency of transactions with the same supplier, and past supplier performance. ~~KG&E~~ operating Agent hold and witness points shall be documented at this time if not already specified in procurement documents. (2) (2)

17.2.7.6 Verification Planning

Planning of verification activities to be employed for item or service acceptance shall begin during the purchase requisition or contract preparation and review stage. The extent of the acceptance methods and associated verification activities will vary and be a function of the relative safety significance and complexity of the purchased item or service and the supplier's past performance. Procedures will provide for the acceptance of simple, off-the-shelf items based exclusively on receiving inspection with no quality verification documentation requirements. Planning shall include a review of the established acceptance criteria and identified documentation. Verification methods which may be employed include certifications (Certificates of Conformance and material certificates or test reports), supplier surveillance, receiving inspection, and postinstallation tests established by ~~KG&E~~ the Operating Agent. Selected (2) (21)

postreceipt testing,

17.2.7.7 Monitoring of Suppliers

Acceptance by supplier surveillance may be considered when the item or service is vital to plant safety; or the quality characteristics are difficult to verify after receipt; or the item or service is complex in design, manufacture, inspection, or test. Surveillance in this sense involves a physical presence to monitor, by observation, designated activities for the purpose of evaluating supplier performance and product acceptance.

Organizations participating in the procurement process shall prepare procedures. These documented procedures assure conformance to the procurement document requirements. Procedures also identify organizational responsibilities; specify the characteristics or processes to be witnessed, inspected or verified, and accepted; the method of surveillance; and the documentation required. These procedures are reviewed and approved by the quality assurance organization. These procedures shall include provisions for the following, as applicable:

1. Identifying supplier planning techniques;

2. Controlling documents generated or processed during activities fulfilling procurement requirements;

3. Identifying and processing change information;

4. Establishing a method of control and documentation of information exchange with the supplier; and

5. Auditing or surveillance of supplier activities.

The originating organization shall establish measures for monitoring supplier-generated document submittals against procurement document requirements. Similarly, measures shall be established for reviewing and approving selected documents generated by the supplier. Changes to procurement documents shall be in accordance with the controls described in Section 17.2.4.

Supplier facility verification activities are the responsibility of the Quality Branch; however, other Operating Agent personnel or consultants may perform or assist the Quality Branch in carrying out this function, provided appropriately qualified personnel are assigned. Supplier monitoring activities may include: (12)

1. Auditing supplier quality assurance program implementation

4. Items determined to be acceptable for use shall be tagged with an accept tag or other acceptable means of identification or segragation and released for storage or use. Conditionally accepting items by receiving inspection will be procedurally controlled.

5. Verifying that received items which do not conform to procurement documents are controlled and segregated (if practicable) and processed in accordance with Section 17.2.15.

17.2.7.9 Post-installation Testing

Acceptance by post-installation test may be utilized following one of the preceding verification methods. Post-installation testing shall be used as the prime means of acceptance verification when it is difficult to verify item quality characteristics, the item requires an integrated system checkout or test, or the item cannot demonstrate its ability to perform when not in use. Post-installation test requirements and acceptance documentation shall be established by ~~KG&E~~ the Operating Agent. Post-installation testing shall be performed by plant personnel and, if required, shall be specified on procurement documents. (2)

17.2.7.10 Acceptance of Procured Items and Services

Acceptance of items and services shall be based on one or more of the following:

1. Written certifications
2. Supplier audit or surveillance
3. Source inspection
4. Receiving inspection and testing (21)
5. Post-installation test

Where required by code, regulation or purchasing agreement, documented evidence that an item conforms to technical and quality requirements or procurement documents shall be available during receiving inspection or prior to use. Where not precluded by other requirements, documentary evidence may take the form of written Certificates of Conformance. Supplier's Certificates of Conformance are periodically evaluated by audits, independent inspections, or tests to assure they are valid. When acceptance is based on supplier audit or surveillance, documented evidence shall be furnished to the plant receiving organization by the responsible ~~KG&E~~ Operating Agent organization or their designated agent. (2)

the Operating Agent

The acceptance of services is very much a function of the service performed and may or may not involve Quality Branch personnel. For example, if the service is for NDE, the Quality Branch personnel will witness/inspect a portion of the work as it is being performed, and will review the inspection reports prepared and turned over to ~~KG&E~~ as the basis for acceptance. If the service is for engineering work the acceptance will be performed by ~~KG&E~~ engineering organizations based on their review of the design output documents produced. If the service is in support of the Quality Branch, such as audit work, the acceptance will be based on a review of the audit report(s) produced. The review will be made by ~~KG&E~~ Quality Branch personnel. (1) (2) (2)

17.2.7.11 Final Acceptance

Final acceptance of items shall be by Quality Branch personnel. The final acceptance of services shall be the responsibility of the originating organization. Acceptance shall be documented.

17.2.7.12 Record Retention

Regarding the control of purchased material, equipment, and services, record retention shall be the responsibility of the Records Management organization. Specified inspection, test, and other records shall be available at the plant prior to installation or use.

17.2.8 IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS

17.2.8.1 Scope

The identification and control of materials, parts, and components shall be accomplished in accordance with documented procedures and applied to safety-related materials, parts, or components during fabrication, storage, installation, or use. Materials, parts, and components identified as nonconforming shall be controlled as described in Section 17.2.15. These controls shall be applied to preclude the use of incorrect or defective items.

17.2.8.2 Procedural Control

Documented procedures shall assure that specifications and other procurement documents include or reference appropriate requirements for the identification and control of materials, parts, and components, including partially fabricated assemblies. Procedures shall also specify measures for material control, including storing and controlling accepted items; controlling the issuing of accepted items from storage while maintaining item identity; controlling the return to storage of issued materials, parts, or components received, stored, installed, modified, and used at the plant site. These procedures shall also assure that correct identifications are verified and documented prior to release.

The identification and control requirements shall address traceability to associated documents, as appropriate; specify the degree of identification and control necessary; specify location and method of identification to preclude a degradation of the item's functional capability or quality; and properly identify materials, parts, and components prior to release for manufacturing, shipping, construction, and installation. Materials, parts, and components manufactured or modified by ~~KG&E~~ the Operating Agent shall be similarly controlled, identified, and documented. (2)

17.2.8.3 Maintenance of Identification

Physical identification may be employed for relating an item at any point in time to applicable design or other pertinent specifying documents, including drawings, specifications, purchase orders, manufacturing and inspection documents, nonconformance reports, and physical and chemical mill test reports. Where physical identification is not employed, physical separation, procedural control, tags, or other appropriate means shall be utilized. Identification shall

17.2.9 CONTROL OF SPECIAL PROCESSES

17.2.9.1 Scope

Special processes are those fabrications, tests, and final preparation processes which require the qualification of procedure, technique, and personnel and which are performed in accordance with applicable codes and standards. Special processes normally require interim in-process controls in addition to final inspection to assure quality.

Special processes include such activities as welding, heat treating, nondestructive examination, application of coatings, and chemical cleaning and shall be accomplished under controlled conditions by qualified personnel in accordance with the technical requirements of applicable codes, standards, specifications, or other special requirements. Procedures detailing special processes shall be qualified in accordance with applicable codes and standards or, where no appropriate standards exist, to ~~NSAE~~ requirements. The qualification of processes and personnel shall be documented and maintained. (2)

Operating Agent

17.2.9.2 Procedural Control

Plant procedures shall prescribe the requirements for the qualification of ~~NSAE~~ procedures, personnel, and equipment. (2)
The involvement of the Quality Branch in the control of special processes includes the review of plant procedures for the adequate inclusion of quality requirements. The Quality Branch directly performs NDE, or performs surveillances on the work of others who provide NDE services. They also inspect other special process activities conducted by the plant maintenance staff and contractors. Special process equipment that may require periodic adjustment and whose performance cannot be verified through direct monitoring of appropriate parameters shall be subject to the controls described in Section 17.2.12. Qualification records shall be maintained current. The Plant Manager shall be responsible for assuring that personnel performing special processes, excluding NDE, are qualified and are employing qualified procedures. Procedures shall also be established for recording evidence of acceptable accomplishments of special processes using qualified procedures, equipment, and personnel.

Operating Agent

Plant and other responsible ~~NSAE~~ organization procedures shall also be established, as appropriate, to prescribe measures for the preparation, review, and approval of procedures for the control of special processes. Plant procedures shall address nondestructive examination (NDE) personnel, special process procedures, and inspection personnel qualification requirements. Procedures detailing special processes prepared by ~~NSAE~~ engineering organizations shall receive an independent review to assure that quality requirements and acceptance criteria have been incorporated and recorded. (2) (2)

Operating Agent

17.2.10 INSPECTION

17.2.10.1 Scope

A program for the inspection of safety-related activities at the WCGS shall be established and executed to verify conformance with applicable documented instructions, procedures, drawings, and specifications. Inspections and process monitoring which serve an inspection function shall be performed by personnel qualified to perform assigned inspection tasks and who are other than the individuals who performed the activity.

17.2.10.2 Procedural Control

The inspection program shall be conducted in accordance with written approved procedures which specify inspection scope; personnel qualification requirements; inspection method description, including any mandatory holdpoints; acceptance criteria; data collection requirements; and documentation approval requirements. Inspection requirements may be obtained from drawings, instructions, specifications, codes, standards, or regulatory requirements.

Inspecting and the monitoring processes shall be performed by qualified personnel in accordance with instructions or procedures. Inspection procedures shall be employed to direct detailed inspection activities. Procedures which specify inspection activities shall be reviewed by the Quality Branch to verify the inclusion of independent inspection or process monitoring when required and to assure the identification of inspection personnel and the documentation of inspection results. ~~NOSD~~ Operating Agent inspection procedures will be reviewed by the Quality Branch. (2)

Instructions, procedures, and supporting documents shall be provided to inspection personnel as applicable for use prior to performing inspection activities. Inspection results shall be documented. Procedures shall prescribe the review and approval authority for inspection results.

Inspection procedures, instructions, or checklists shall provide, as required, for the following:

1. Identifying characteristics and activities to be inspected

2. Describing the method of inspection

3. Identifying the individuals or groups responsible for performing the inspection operation

The services of an outside organization may be secured for the conduct of PSI/ISI inspections. The Plant Manager shall also be responsible for the development and performance of the PSI/ISI testing of pumps and valves as described in Section 17.2.11.

17.2.10.5 Acceptance

The acceptance of an item shall be documented by authorized personnel. Modification, repair, or replacement of items performed subsequent to final inspection shall require reinspection or retest, as appropriate, to verify acceptability.

17.2.10.6 Qualification of Inspection Personnel

~~KG&E~~ Operating Agent personnel or personnel from outside organizations shall perform acceptance inspection activities and shall be qualified within their respective areas of responsibility. The assignment of plant acceptance inspection personnel shall be under the direction and control of the Quality Branch. Qualification of ~~KG&E~~ Operating Agent inspection personnel (Exclusive of NDE) shall not be limited by company position and shall be defined in levels of capability. The number of levels established for each type of inspector shall be at least one but no more than three. Inspection assignments shall be consistent with the certification of an individual. Inspections associated with normal operations of the plant such as routine maintenance, surveillance, and tests) shall be performed by individuals other than those who performed or directly supervised the work and may be within the same group, if the following controls are met:

1. The quality of the work is demonstrated through a functional test when the activity involves breaching a pressure retaining item.

2. Inspection procedures, and qualifications of inspection personnel are reviewed and found acceptable by the Quality Branch prior to initiating the inspection.

17.2.10.7 Qualification of NDE Personnel

Nondestructive examination functions shall be accomplished by plant personnel or outside organizations. Personnel involved in the performance, evaluation, or supervision of nondestructive examinations shall meet the qualification requirements specified in SNT-TC-1A. The certification of nondestructive testing personnel shall be to one of three basic levels of qualification.

17.2.11 TEST CONTROL

17.2.11.1 Scope

Testing shall be performed at the WCGS to demonstrate that safety-related structures, systems, and components perform satisfactorily in service. Test programs include preoperational tests, initial startup tests, surveillance tests, pump and valve tests, and special tests, including those associated with plant maintenance, modification, procedure changes, failure analysis, and the acceptance of purchased material.

17.2.11.2 Procedural Control

thru the Plant Manager

Test programs shall be established by the Director Nuclear Operations to assure that testing demonstrates item or system performance. Testing shall be performed in accordance with written procedures which incorporate or reference the requirements and acceptance limits contained in applicable Technical Specifications, drawings, instructions, procurement documents, specifications, codes, standards, and regulatory requirements. Test program procedures shall control when a test is required and how it is to be performed. (22) (23)

Test procedures are reviewed by qualified personnel and the PSRC, and approved by the Plant Manager.

Test administrative procedures, test procedures and checklists employed during tests shall include, as applicable, prerequisite conditions; material and test equipment requirements; mandatory hold points; testing method instructions; limiting conditions and acceptance/rejection criteria; data collection method and test result approval requirements. Where outside organizations are utilized for plant or plant-related tests, procurement document requirements shall impose test requirements consistent with those described herein.

17.2.11.3 Personnel Qualifications

Personnel within the various Operating Agent ~~WCAP~~ organizations or outside organizations shall perform testing activities, including implementing test procedures and the evaluation and reporting of test results. The assignment of plant ~~Startup~~ testing personnel shall be under the direction of the ~~Startup Manager for preoperational testing and the~~ Plant Manager ~~for initial startup testing and post plant acceptance testing~~. Qualified personnel outside the plant organizations may be employed to perform testing activities. Qualification of ~~Plant~~ personnel shall be defined in levels of capability which are not limiting with regard to company position. The number of levels established for each classification of test personnel shall be at least one but not more than three. Testing assignments shall be consistent with the certification of an individual. (2) (4) (1) (2)

Operating Agent

A testing personnel procedure shall be established to assure test program activities are performed by qualified personnel. Plant procedures and procurement documents shall prescribe the qualification requirements of testing personnel. ~~The Startup Manager and~~ The Plant Manager shall be responsible for assuring that test personnel are qualified for certification during the test programs for which they have responsibility. They shall ensure documented evidence is available of qualifications of personnel performing plant test functions.

17.2.11.4 Test Results

Test results shall be documented, reviewed, and approved by qualified individuals or groups. Equipment found to be deficient shall be identified in accordance with Section 17.2.14. Surveillance test results which fail to meet the requirements and acceptance criteria shall be documented and reviewed in accordance with ~~Section 17.2.15~~ Technical Specifications. Deficiencies identified as nonconforming shall be reviewed in accordance with Section 17.2.15.

17.2.11.5 Test Evaluations

Upon completion of system preoperational testing, the test results ~~are~~ were submitted to the JTG for its review and subsequent recommendation for approval, ~~to the Startup Manager and Plant Manager~~. The JTG was dissolved upon completion of the Startup Test program.

The results of special tests ~~performed after fuel load shall be~~ are reviewed by the PSRC. Proposed tests ~~to be performed by the Startup organization~~ which involve an unreviewed safety question or change in the Technical Specifications shall be reviewed by the NSRC prior to ~~the~~ performance of the test. The NSRC shall review any test reports associated with such tests. ~~Test procedures performed after fuel load are reviewed by qualified personnel and the PSRC, and approved by the Plant Manager~~.

17.2.11.6 Preoperational and Startup Tests

The Startup Manager ~~shall be~~ was responsible for the administration and conduct of the preoperational testing program. The Plant Manager ~~shall be~~ was responsible for the administration and conduct of the initial startup testing program and all post plant acceptance testing. Test procedures employed during the preoperational and the initial startup test programs ~~shall be~~ were prepared and approved under the requirements of the Wolf Creek administrative procedures. Preoperational test procedures ~~are~~ were reviewed by qualified personnel and the JTG, and approved by the Startup Manager. Initial startup test procedures and post plant acceptance test procedures ~~are~~ were reviewed by qualified personnel and the PSRC, and approved by the Plant Manager.

Surveillance test results are reviewed by designated plant supervisory personnel.

17.2.11.7 Systems Control

At turnover of systems or portions of systems to the plant staff, the Plant Manager ~~shall be~~ responsible for their operation. During the period prior to the initiation of startup testing, to the extent practicable, the plant technical and operating staff ~~shall~~ familiarize themselves with the facility operation and verify by trial use that operating and emergency procedures ~~are~~ adequate. (10) (11)

17.2.11.8 Measuring and Test Equipment

Equipment and instrumentation used in test acceptance shall be controlled in accordance with 17.2.12 Section (26)

17.2.11.9 Surveillance Testing

Provisions shall be established for the performance of surveillance testing to assure that the necessary quality of systems and components is maintained, that facility operations are within the safety limits, and that limiting conditions of operation can be met. The testing frequency shall be at least as frequent as prescribed in the Technical Specifications. The provisions for surveillance testing shall include the preparation of schedules which reflect the status of planned surveillance tests. Qualified plant staff will perform surveillance tests.

17.2.11.10 Acceptance Testing

When required by procurement documents, testing shall be employed as a means of purchased material and equipment acceptance. Acceptance testing of this nature shall be performed during receiving inspection or subsequent to installation, in accordance with the Section 17.2.7.

17.2.11.11 Test Records

Test procedures, test data, and test data evaluations shall be retained as part of the plant record.

17.2.12 CONTROL OF MEASURING AND TEST EQUIPMENT

17.2.12.1 Scope

The calibration and control program established at the WCGS shall assure that tools, gauges, and instruments maintain their required accuracy. The Plant Manager shall be responsible for assuring the program's establishment and implementation. Test instrumentation shall be utilized by various organizations as required to perform tests or other special operations. Each organization shall be responsible for assuring that the measuring and test equipment (M&TE) it employs has been properly calibrated. ~~Outside organizations and other KG&E~~ organizations employing M&TE in quality activities at the WCGS shall be required to implement a calibration and control program consistent with the requirements described herein. (2)

17.2.12.2 Procedural Control

M&TE utilized in activities related to the operation of the WCGS shall be controlled in accordance with written procedures or instructions. The procedures for the calibration and control of M&TE shall address identification of the item to be calibrated and test equipment, calibration techniques including acceptance tolerances, calibration frequencies, maintenance control, storage requirements and any special instructions. The equipment subject to these controls shall include measuring instruments, test instruments, tools, gauges, reference standards, transfer standards, and nondestructive test equipment employed in measuring, inspecting, and monitoring safety-related structures, systems, and components. Permanently installed process instrumentation is not included in this listing.

Inspection, test, maintenance, repair, and other procedures shall include provisions to assure that M&TE employed in activities affecting quality are of the proper range, type, and accuracy to verify conformance to requirements and test parameters.

17.2.12.3 Program Requirements

The calibration and control program shall provide for:

1. The assignment of specific calibration intervals for M&TE and calibration procedures which specify calibration methods and instrument accuracy requirements. Interval selection shall be a function of the equipment type, inherent stability and reliability, intended use, required accuracy, and other conditions which may affect calibration. Records shall be

2. Separate administrative procedures are used for M&TE and permanently installed process instrumentation.

3. Calibration and replacement of M&TE is documented on calibration laboratory records. Repair, maintenance, and replacement of permanently installed safety-related process instrumentation is controlled by a "Work Request" procedure including calibration.

4. M&TE where practical should be calibrated against standards four times as accurate as the M&TE being calibrated. Permanently installed safety-related process instruments are calibrated against M&TE which are at least as accurate as the accuracy required of the process instrumentation being calibrated in accordance with written and approved procedures.

5. M&TE is tagged or labeled to show the due date for next calibration. Permanently installed safety-related instruments are uniquely identified and records are maintained which indicate calibration dates and the due dates for the next inspection/calibration.

17.2.12.4 Calibration Controls

Calibration shall be performed against certified equipment or reference or working standards having known relationships to nationally recognized standards. Where no national standard exists, provisions shall be established to document the basis for calibration. Special calibration and control measures shall not apply to rulers, tape measures, levels, and other devices if normal commercial practice affords adequate accuracy.

17.2.12.5 Nonconformance Controls

M&TE found to be out of calibration shall require an investigation to evaluate the validity of previous measuring, test, inspection, and calibration results and the acceptability of impacted items. Investigations shall be documented and shall evaluate the necessity of repeating original measurements, inspections, tests, or calibrations to establish the acceptability of such items. When the calibration history of an item shows it to be consistently out of calibration, the item shall be repaired, replaced, or the calibration interval modified.

17.2.12.6 Records

Records of ~~Wolf Creek~~ company performed plant calibration activities shall be maintained by the plant staff. (2)

17.2.13 HANDLING, STORAGE, AND SHIPPING

17.2.13.1 Scope

Safety-related items including parts of structures, systems, and components shall be handled, stored, shipped, cleaned, and preserved to assure that the quality of items is preserved from fabrication until incorporation into the WCGS.

17.2.13.2 Procedural Control

Generic procedures shall be prepared for application to these activities; however, as appropriate, detailed procedures shall be prepared for the handling, cleaning, storing, maintaining while stored, packaging, or shipping of specific items or types of equipment or material. Consumables utilized in safety-related structures, systems and components are under the control of the operating Quality Program (27)

Procedures shall provide instructions for the storage of materials and equipment to minimize the possibility of damage or lowering of quality from the time an item is stored upon receipt, until the time the item is removed from storage and placed in its final location. The manufacturers' recommendations are considered and generally are incorporated into storage instructions, however, relaxation of manufacturers' storage requirements may be implemented if an engineering evaluation determines that relaxation is justified because of unrealistic storage recommendations which are not reasonably necessary to preclude equipment degradation. Material and equipment shall be stored at locations which have a designated storage level. The various storage levels shall be procedurally defined and shall have prescribed environmental conditions. The storage conditions shall be in accordance with design and procurement requirements to preclude damage, loss, or deterioration due to harsh environmental conditions. Items having limited calendar or operating life shall be identified and controlled to preclude the use of items whose shelf life or operating life has expired.

where specific properties or shelf life of lubricants, reagents, chemicals and other consumable material is important, procedures concerning the use of the material in a safety-related activity shall contain appropriate controls. otherwise these materials are stored in accordance with good practice and labeling methods.

17.2.13.3 Special Procedures

Procedures shall be prepared for all items that require special handling and shall be available prior to the time items are to be moved. Items not specifically addressed by procedures shall be handled in accordance with sound material handling practice. The movement of fuel assemblies to and in the reactor core shall be handled in accordance with the technical specifications. Other material handling activities may involve personnel from various plant organizations. Operators of special handling and lifting equipment shall be experienced or trained in the use of equipment.

17.2.14 INSPECTION, TEST, AND OPERATING STATUS

17.2.14.1 Scope

Safety-related and special scope items that are received, stored, or installed at the WCGS shall be identified and controlled in accordance with documented procedures.

17.2.14.2 Item Status Identification

Items received at or installed in the plant shall be identified in accordance with procedures as to their inspection, test, and operating status. Procedures shall control the application and removal of inspection and welding stamps and status indicators such as segregation, tags, markings, labels, and stamps. In the event traceability is not available or lost, the item(s) shall be considered nonconforming and handled in accordance with Section 17.2.15.

~~Placement and removal of tags used to define the boundaries of systems or components turned over to the Startup organization are the responsibility of the Startup Manager. Tagging used to control nonconforming items found during the Startup phase is also the responsibility of the Startup Manager.~~ (1)

Placement and removal of safety tags on installed equipment which has been turned over to Startup or Operations are the responsibility of the Operations Shift Supervisors. These tags are used to prevent operation of equipment, protect workers and to protect plant equipment from damage.

Placement and removal of tags to identify and control uninstalled, nonconforming items or materials subsequent to turnover from construction are the responsibility of the Quality Branch. Items segregated and placed in quarantine are the responsibility of the plant organization.

Certified welders will be assigned welder identification numbers by the Mechanical Supervisor. The identification number of welders making welds in compliance with the ASME code or on safety-related items will be documented.

17.2.14.3 Operating Status

Plant procedures shall provide instructions relating to the operational status of safety-related structures, systems, and components, including temporary modifications. Those procedures shall address: Authorization for requesting that equipment be removed from service; checks which must be made before approving the request; approval of the action to remove the equipment from service; the actions necessary to isolate the equipment and responsibility for performing these actions; the actions necessary to return the equipment to its operating status and responsibility for these actions. Equipment and

17.2.15 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

17.2.15.1 Scope

Nonconformances are any deficiency in characteristics, documentation, or procedure which renders the quality of an item unacceptable or indeterminate. Nonconformances, therefore, include material deficiencies, malfunctioning or inoperative structures, systems and components, and departures from specified procedural requirements which impact the quality of an item. Nonconforming activities which have not resulted in hardware nonconformances (i.e., programatic or procedural deficiencies which do not impact the quality of an item), are corrected in accordance with Chapter 17.2.16, Corrective Action.

17.2.15.2 Nonconformance Controls

Nonconformances identified under the ~~NCAE~~ operating Quality Program (4) shall be identified, documented, controlled, dispositioned and corrected in accordance with approved procedures. These measures shall provide for the notification of affected parties and controls to prevent the inadvertent use of nonconforming items.

Nonconformances shall be controlled by report documentation, tagging, marking, logging, or physical segregation. Nonconformances shall be documented on records which identify the nonconforming condition , record the disposition, and register the signature of an appropriate approval authority. Nonconformances shall be reworked, rejected, repaired, or accepted. Repaired and reworked items shall be reinspected/tested in accordance with applicable procedures to ensure that critical attributes possibly affected by the nonconforming condition remain acceptable. These procedures will be based on original inspection and test requirements or approved alternatives. (7) Reinspection results and operational data, gathered subsequent to repair or rework, are documented or referenced on nonconformance, test or inspection documentation.

Plant Modification Requests (PMRs) are used in the Nonconformance Program to carry out dispositions of "use-as-is" or "repair." The PMR process ensures that all aspects of plant operation are considered in light of the fact that the dispositioned item is now not exactly per original design. These considerations include revision of applicable drawings, possible revisions to operation, test, maintenance and inspection procedures; training of affected personnel, changes to spare parts inventory; unreviewed safety questions; and review of licensing documents. (7)

Measures shall be established to control the conditional release of nonconformances for which correction is pending and a technical evaluation indicates that installation and/or testing, will not adversely affect nor preclude identification and correction of the nonconformance. A conditional release to proceed installation and/or with testing of a system or subsystem with outstanding nonconformances will consider the nature of the nonconformance, its effect on installation and/or testing and the need for supplemental tests or inspections after correction of the nonconformance. Safety-related and special scope conditional releases are reviewed and approved by the ~~KG&E~~ Quality Branch prior to implementation. Conditional release evaluations shall be documented.

Nonconforming items required for Technical Specification Operability shall only be released for use through the completion of a Plant Modification Request (PMR) and, thus, cannot be conditionally released for operations.

and that the item under consideration will continue to meet all engineering functional requirements including performance, maintainability, fit and safety.

"Repair" and "Use-as-is" dispositions shall be approved by the responsible design authority as prescribed in procedures. This authority shall be an organization which has demonstrated competence in the specific area, has an adequate understanding of the requirements and has access to pertinent background information.

Prior to implementation, dispositions ~~may, for the preoperational test phase, and~~ shall, ~~for the Startup and Operations Phase,~~ be independently reviewed by the Quality Branch. (0)

17.2.15.5 Procurement Controls

Plant and other Operating Agent ~~KG&E~~ organization procedures shall prescribe measures for the control and disposition of Operating Agent ~~KG&E~~ purchased (1)

items which are identified by outside organizations as nonconforming. Procurement documents specify those nonconformances which shall be submitted to ~~KG&E~~ the Operating Agent for approval of the recommended disposition. Actions taken in response to these nonconformances shall require documentation and shall be forwarded to ~~KG&E~~ the Operating Agent along with the hardware and accompanying quality verification documentation. ~~Nuclear Plant Engineering~~ The corporate organization shall approve the recommended disposition of nonconformances relating to ~~KG&E~~ the Operating Agent initiated procurement requirements. The Quality Branch staff shall be responsible for ~~documenting~~ supervising the processing of these supplier-recommended dispositions. The disposition of a nonconformance which involves the design requirements shall be treated as a design change and, therefore, approved by the responsible design authority.

17.2.15.6 Reportable Nonconformances

Nonconformances shall be evaluated for reportability to the NRC under 10 CFR 21. All nonconformances identified as reportable shall be reviewed by the PSRC and NSRC.

17.2.15.7 Trend Analysis

Nonconformance documentation shall be analyzed by Quality Branch personnel for identification of potential unsatisfactory programatic quality trends and vendor performance. The results of these analyses shall be reported to management. Significant adverse quality program trends shall be handled in accordance with Section 17.2.16.

Hardware malfunctions of equipment are reviewed within ~~KG&E~~ the Operating Agent by a nuclear plant reliability data system program. The program will determine and evaluate the causes of hardware malfunctions/failures. A review and evaluation of previous experiences (trending) for the equipment or component is made to determine whether the item is functionally reliable. The program provides corrective measures prior to the repair/replacement of components in safety-related systems which have been performed in a reliable manner.

17.2.16 CORRECTIVE ACTION

17.2.16.1 Scope

Corrective action control measures shall be established to assure that conditions adverse to quality are promptly identified, reported, and corrected to preclude recurrence. Corrective action is necessary to correct omissions and problems in the operating Quality program. Corrective actions associated with the resolution of hardware related NCRs, audit, and programatic/procedural findings are processed in accordance with Sections 17.2.15 and 17.2.18, respectively.

Significant conditions adverse to quality which impede the implementation or reduce the effectiveness of the program shall be controlled by the measures described herein. These conditions shall be reported to appropriate management, evaluated, and corrected. Significant adverse conditions may include an isolated gross noncompliance with procedural requirements, a recurring condition for which past corrective action has been ineffective, significant adverse nonconformance trends, or significant operating Quality program deficiencies.

17.2.16.2 Corrective Action Request (CAR)

Procedures shall provide instructions for identifying, reporting, and initiating corrective action to preclude recurrence of significant adverse conditions. A Corrective Action Request (CAR) shall be employed to document significant adverse conditions and to initiate the corrective actions for these conditions except in those instances when 10CFR21 reports, ~~10CFR50.55(e) reports~~ or similar regulation required reports are prepared. (1)

CARs shall be initiated by the Operating Agent Quality Branch. CARs are transmitted to the responsible ~~Kiewit~~ manager. The manager shall identify the cause(s) of the deficiency, specify the action(s) necessary to correct the condition(s) and prevent recurrence, and provide or initiate the corrective action. (2)

The appropriate engineering organization shall review significant conditions adverse to quality which involve design deficiencies or recommended corrective actions which require design change. In such cases the appropriate engineering organization shall be responsible for cause identification and recommending corrective action.

17.2.17 QUALITY ASSURANCE RECORDS

17.2.17.1 Scope

A records system governing the collection, storage, and maintenance of records shall be established by Operating Agent ~~WCGS~~ and shall be in compliance with the standards and Regulatory Guides identified in Table 17.2-3. At a minimum, the records system shall apply to operating phase records associated with operating Quality program governed activities when records are required to either demonstrate compliance with licensing commitment or finished documentary evidence of the quality of items and activities affecting quality. All such records shall be considered QA records and shall be legible, complete, adequately identifiable to the item or activity involved and readily retrievable. (2)

Quality Assurance records include but are not limited to operating logs; maintenance and modification procedures and inspection results; reportable occurrences; results of monitoring and reviews; inspections, tests, audits, and material analyses; qualification of personnel, procedures, and equipment; records required by Technical Specifications; and other documentation including drawings, specifications, procurement documents, nonconformance documentation, corrective action requests, procedures, and calibration procedures and reports required to demonstrate compliance with license commitments.

17.2.17.2 Responsibilities

A records system shall be established by the plant and other Operating Agent ~~WCGS~~ organizations and shall be controlled in accordance with written procedures. Implementing procedures shall address records administration; receipt of records; storage, preservation, and safekeeping of records; record retrieval; and the disposition of records in accordance with requirements identified in Table 17.2-3. The Manager Management Systems is responsible for assuring the handling and maintenance of Quality Assurance records generated, received, and stored at the home office. The Manager Management Systems shall also establish and maintain a system for the receipt, disposition, and retrieval of WCGS construction-related records. The Operations Branch is responsible for establishing a system for the receipt, disposition, and retrieval of records generated during the test, startup, and operation phases of the WCGS. The Quality Branch shall audit the home office and the WCGS Quality Assurance record storage systems to verify their effectiveness. (2) (9)

17.2.17.3 Records Index

The requirements for records administration shall specify that Quality Assurance records be listed in an index. The index shall be established prior to the receipt of records and shall indicate the location of records. Distributing and handling

records, correcting or supplementing Quality Assurance records, and specifying the retention period of record types shall also be delineated in written procedures. The retention period of records generated prior to commercial operation ~~shall begin~~ on the date of commercial operation. (1)

17.2.17.4 Records Receipt

The requirements for receipt of records shall define the methods for the receipt of documentation generated by others during the operation of the WCGS. These requirements shall assure that a specific submittal plan be established between ~~KCGS~~ and outside organizations, and that designated authorities be responsible for organizing and implementing a system of records receipt control. The records receipt control shall also permit an assessment of the status of records during the receiving process. (2)

17.2.17.5 Inspection and Test Records

Inspection and test records shall contain the following where applicable:

1. A description of the type of observation
2. The date and results of the inspection or test
3. Information related to conditions adverse to quality
4. Inspector or data recorder identification
5. Evidence as to the acceptability of the results
6. Action taken to resolve any discrepancies noted

17.2.17.6 Records Maintenance and Storage

The requirements for storing, preserving, and safekeeping of records shall establish storage requirements for the maintenance, preservation, and protection of quality assurance record files in compliance with ANSI N45.2.9. These requirements shall include methods for maintaining control of, access to, and accountability for records; storing records in a manner to preclude deterioration; security; and providing record storage facilities which protect contents from possible destruction by causes such as fire. A satisfactory alternative to the establishment of a single record storage facility shall be the maintenance of a duplicate copy of records in a remote

location. Where duplicate storage is employed, the storage environment will not be unique to each storage area but will be the prevailing building temperature and humidity.

17.2.17.7 Records Retrieval

The requirements for record retrieval shall specify that the storage system afford an accurate retrieval of information without undue delay. Those records maintained by an outside organization shall be required to be accessible to the buyer or, ~~KG&E~~, in the case of lifetime records, for the life of the items involved or for designated retention times for nonpermanent records. | (2)

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17.2.17.8 Records Disposition

the Operating Agent

The requirements for record disposition shall establish methods for the transfer of records from others to ~~KG&E~~. Upon final transfer, records shall be inventoried against any transmittal forms and processed in accordance with written procedures. Nonpermanent records shall be retained for the minimum retention period and, subsequently, may be disposed of by or with the concurrence of ~~KG&E~~. | (1) | (2)

the Operating Agent

17.2.18 AUDITS

17.2.18.1 Scope

A comprehensive audit program in compliance with ANSI N45.2.12 has been ~~shall be~~ established and implemented by ~~KG&E~~ the Operating Agent to verify internal and external quality activity compliance with the operating Quality program. The audit program shall assure that applicable elements of the program have been developed, documented, and are being effectively implemented and shall provide for reporting and reviewing audit results by appropriate levels of management. The audit system is described in manuals and procedures. Nonconformances and program deficiencies shall be identified and corrective action shall be verified. (2)

The ~~KG&E~~ Operating Agent audit system shall include the performance of audits and surveillances. Audits determine, through investigation, the adequacy of and adherence to established procedures, instructions, specifications, codes, and other applicable contractual and licensing requirements and the effectiveness of implementation. Surveillances are narrow scope investigations which include direct observation of activities affecting quality. Surveillances shall be conducted by Quality Branch personnel who may or may not be Lead Auditors, and may or may not include entrance and exit meetings. Surveillance activities are planned, conducted, documented, reported, followed-up, and closed out in accordance with written procedures. (2)

17.2.18.2 Responsibilities

The Quality Branch shall establish a program which provides for the qualification and training of audit and surveillance personnel.

The Director Quality shall be responsible for assuring the implementation of a comprehensive system of planned audits to verify compliance with the operating Quality program. The Quality Branch has sufficient authority and organizational freedom to schedule and perform both internal and external audits, and has the organizational responsibility to measure and assure the overall effectiveness of the operating Quality program. The Quality Branch is independent of the economic pressures of production. The Director Quality has direct access to the Vice President - Nuclear for resolution of any areas in question.

The Manager Quality Assurance (WCGS) is responsible for assuring that the operating Quality program is being effectively implemented for onsite operating activities and shall direct full attention to this effort. He reports on the program effectiveness directly to the Director Quality. A communication

17.2.18.3 Auditor Qualifications

Audits shall be performed by qualified personnel. Auditors shall be trained individuals certified to meet internally designated personnel qualifications which assure his capability to direct an audit, perform an audit, report audit findings, and to evaluate corrective action. Other personnel may assist auditors in the conduct of audits, namely, technical specialists, management representatives, or auditors in training. Such personnel selected for auditing assignments shall have training or experience commensurate with the scope, complexity, or special nature of the activities to be audited. Personnel performing audits shall have no direct responsibility for the area audited. The auditor training program shall provide appropriate general orientation and specific training which develop competence for performing audits. Training records shall provide a history of auditor training, evaluations, recommendations, qualification certifications, and retraining.

the Operating Agent

Personnel in the Quality Branch shall be qualified as auditors in accordance with the requirements prescribed in the operating Quality program. Auditor qualification requirements shall include education or professional status, previous work experience and training, training received through ~~Kssc~~, on-the-job performance and participation in audits as a trainee, and other performance factors applicable to auditing not defined by procedure. The qualification and certification of auditors shall be based on an evaluation of these factors by the Quality Branch. The maintenance of proficiency by auditors shall be accomplished by regular and active participation in the audit process or training, and a review of program, codes, standards, procedures, and other document revisions related to the operating Quality program and program auditing. The certification period shall not be finite. An auditor's qualification may be rescinded. The failure to maintain proficiency in the audit process shall be basis for revoking the qualification certification. In such cases, requalification shall be required. | (2)

17.2.18.4 Audit Planning

The audit system shall include internal and external audits. The system shall be planned, documented, and conducted to assure coverage of the applicable elements of the operating Quality program, and overall coordination and scheduling of audit activities. The Quality Branch shall review the operating Quality program audit program annually to assure audits are being accomplished in accordance with the requirements described herein.

Audits shall be conducted using written plans in accordance with Quality Branch procedures. The procedures require evaluation of work areas, activities, processes, goods, services, and the review of documents and records for quality-related practices, procedures, and instructions to determine the effectiveness of the implementation of the operating Quality program and compliance to 10 CFR 50, Appendix B. The audit plan shall identify the audit scope, the requirements, the applicable documents, the schedule, and the written procedures or checklists as appropriate. The audit plan and any necessary reference documents shall be available to the audit team members.

17.2.18.5 Audit Frequency

Internal audits shall be conducted by the Quality Branch and shall be performed with a frequency commensurate with their safety significance. An audit of safety-related functions shall be completed in accordance with formal audit schedules within a period of two (2) years. Each element of the operating Quality program, such as design control and document control, and each area of plant operations shall be audited.

Supplementary to the biennial requirement to audit all safety-related functions, the following program elements shall be audited at the indicated frequencies:

1. The results of actions taken to correct deficiencies that affect nuclear safety and occur in facility equipment, structures, systems, or method of operation - at least once per six months.

2. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions - at least once per 12 months.

3. The performance, training, and qualifications of the facility staff - at least once per 12 months.

Audits shall also be conducted when (1) significant changes are made in functional areas of the operating Quality program, such as significant reorganization or procedure revisions; or (2) when it is suspected that the quality of the item is in jeopardy due to deficiencies in the quality assurance program; or (3) when a systematic, independent assessment of program effectiveness is considered necessary; or (4) when necessary to verify implementation of required corrective action. The NSRC shall review audit reports of onsite audits. ~~The QAC~~ (31)

~~shall also~~ periodically review the onsite audit program as developed by the Quality Branch to assure that audits are being performed in accordance with the requirements of the operating Quality program. Appropriate levels of management will be provided copies of internal and external audit reports. (31) (31)

17.2.18.6 Supplier Audits

External audits shall generally be conducted by the Quality Branch as a measure for the evaluation of procurement sources and as a postaward source verification of conformance to procurement documents. Audits conducted by other organizations, including other utilities or A/Es, may be employed as a means of postaward source verification in lieu of ~~KG&E performed~~ audits and may not audit specific items furnished to ~~KG&E~~. Off-the-shelf items whose fulfillment of the technical and quality requirements are accepted by receiving inspection are exempt from the audit program. Similarly, other items which are not off-the-shelf but are relatively simple and standard in design and manufacture may not require postaward source verification audits to assure their quality. (21)

Applicable elements of suppliers' quality assurance programs shall be audited (postaward) on a frequency that is based upon the status and importance to safety of the activities being performed. Audits are generally initiated when sufficient work is in progress to determine whether the organization is complying with the established quality provisions. Subsequent contracts or contract modifications which significantly enlarge the scope of activities by the same supplier shall be considered in establishing audit requirements.

Supplementary to or in lieu of audits, annual evaluations of suppliers may be performed which take into account, as applicable, (1) the review of supplier furnished documents such as certificates of conformance, nonconformance notices, and corrective actions; (2) results of previous source verifications, audits, and receiving inspections; (3) operating experience of identical or similar products furnished by the same supplier; and (4) results of audits from other sources.

17.2.18.7 Audit Team Composition

An audit team consists of one or more qualified persons. A qualified auditor shall be appointed audit team leader. The audit team leader shall be responsible for the written plans, checklists, team orientation, audit notification, preaudit conference, audit performance, postaudit conference, reporting, records, and follow-up activity to assure corrective

action. Audit procedures shall require that conditions requiring immediate corrective action be reported promptly to the appropriate supervisor. Other findings shall be reported in a postaudit conference with team members and the audited organization, to discuss items. Formal audit reports shall be prepared and submitted to the audited organization within thirty days after the postaudit conference.

17.2.18.8 Audit Records

Records shall be retained by the Operating Agent ~~KG&E~~ for activities associated with the requirements described herein. Records shall be collected, stored, and maintained in accordance with the requirements described in Section 17.2.17. (2)

17.2.18.9 Audit Program Reviews

Audit results shall be periodically reviewed by the Quality Branch for quality trends and overall program effectiveness. The audit program shall be reviewed periodically ~~by the QAC~~ to assure that audits are being conducted and are effective in identifying problems, and to verify that appropriate actions are taken. Results of these reviews shall be reported to appropriate management in perodic summary reports of audit activities. (31)

in accordance with Section 17.2.2.6

TABLE 17.2-1

CONTROLLED PROCEDURE MANUALS

Identification	Description	Approval
~~Wolf Creek Project~~ Nuclear Department Policy Manual (6)	A manual consisting of policies and directives which have applicability to all ~~project~~ department personnel. (6) The operating Quality program is described in this document It covers the responsibilities and authority of each organization in the Nuclear Department and provides uniform direction to these organizations.	All sections of this manual will be reviewed and commented upon by the Division/Branch Heads. Approval and issuance of this manual and changes thereto will be by the Vice President-Nuclear.
Nuclear Department General Procedures	The general procedures are utilized to implement the requirements specified in the directives when two or more divisions/branches are involved. This reduces the need for duplicate division level procedures and provides common direction to the involved divisions/ branches.	Reviewed and approved by affected division/branch managers and then by the Vice President - Nuclear.
Wolf Creek Generating Station Procedure Manuals	A multi-volume set of procedures prepared by the plant staff with the aid of the other SNUPPS utility, the Lead A/E, and the NSSS supplier. ~~These procedures are divided into two areas, Operations and Startup.~~ (1) The ~~Operations section of the~~ Station Manuals are controlled, issued and approved in accordance with the applicable procedural controls under the direction of the Plant Manager. ~~The Startup section of the Station Manual is controlled, issued and approved in accordance~~ (1)	~~For the Operations Organization,~~ (C) All safety-related procedures and all revisions thereto shall be reviewed by the WCGS Plant Safety Review Committee (PSRC) or a subcommittee thereof. Final approval of all procedures and revisions to the ~~Operating Organization~~ (C) procedures are made at the appropriate management level as outlined in the administrative procedures. ~~For the Startup Organization, all preoperational test procedures, administrative procedures, and changes thereto are approved by the Joint Test Group (JTG) and the appropriate management level in accordance with the applicable administrative procedures.~~ (C)

TABLE 17.2-1a

CONTROLLED PROCEDURE MANUALS

safety-related

Identification	Description		Approval
Wolf Creek Generating Station Procedure Manuals (cont'd)	~~with the applicable procedural controls under the direction of the Startup Manager~~. These procedures implement the applicable commitments of the ~~Wolf Creek~~ Nuclear Department Policy Manual for WCGS ~~startup and~~ operating activities except those of the Quality Branch. ~~These manuals include administrative controls for the conduct of an efficient and orderly preoperational and start-up test program as well as the plant operating procedures~~.	(1) (6) (1) (1)	Quality Branch personnel will review the administrative and inspection procedures contained in this manual and any revisions or changes thereto. (19)
Quality Program Manual	The Manual that provides instruction to the Quality Branch for the definition and conduct of Branch responsibilities as described in the operating Quality program and assigned by the ~~Wolf Creek Project~~ Nuclear Department Policy Manual. The Manual contains, primarily, responsibilities and requirements. Requirements of this Manual are implemented through the Quality Assurance Procedures Manual and the Quality Control Procedures Manual.	(6)	Approval and issuance of this Manual and changes thereto shall be by the Director Quality

TABLE 17.2-1b

CONTROLLED PROCEDURE MANUALS

Identification	Description	Approval (4)
KG&E Procedures Manual	A Manual consisting of a set of procedures prepared by various responsible ~~KG&E~~ Operating Agent (2) divisions and branches. These procedures are approved by the various division/branch heads and serve to implement the requirements specified in the ~~Wolf Creek Project~~ Quality Assurance (3) Policy Manual regarding off-site and on-site quality activities of the divisions/branches which support the ~~startup and~~ (1) operation of the WCGS.	All safety-related procedures within this manual and all revisions thereto shall be prepared by the responsible division/branch or function and shall receive a documented review by the Quality Branch. Such reviews shall document deviations/violations to license commitments which shall be satisfactorily resolved prior to procedure issuance. Final signature approval of all safety related procedures and revisions this manual is by the responsible division/branch head.

CONTROLLED MANUAL FLOWCHART

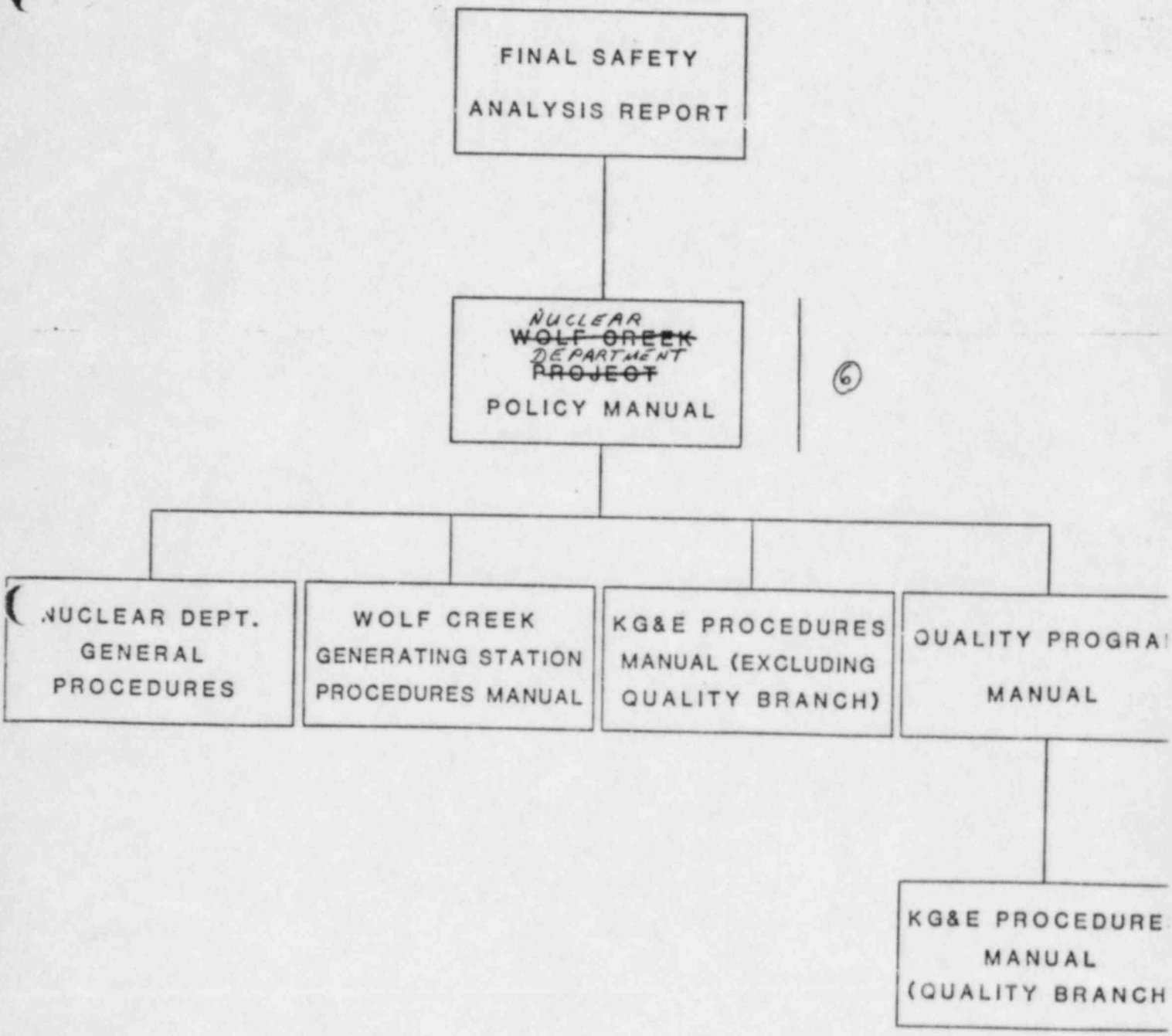

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FIGURE 17.2-3

CONTROLLED MANUAL FLOWCHART