



KANSAS GAS AND ELECTRIC COMPANY

GLENN L KOESTER  
VICE PRESIDENT - NUCLEAR

January 13, 1984

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. John T. Collins, Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

KMLNRC 84-004  
Re: Docket No. STN 50-482  
Subj: Quality Assurance Program Changes

Gentlemen:

10CFR50.55 requires that after March 11, 1983, each Construction Permit holder may change a previously accepted Quality Assurance Program description included in the Final Safety Analysis Report, provided the change does not reduce the commitment in the program previously accepted by the NRC.

Transmitted herewith are changed pages to the Wolf Creek Operating Quality Program described in the Wolf Creek Final Safety Analysis Report. The attached material also describes for the above changes 1) the reason for the change, and 2) the basis for concluding that the change does not reduce the KG&E commitments in the Operating Quality Program previously accepted by the NRC.

This information will be formally incorporated into the new revision of the Wolf Creek Final Safety Analysis Report. The information is hereby incorporated into the Wolf Creek Generating Station, Unit No. 1, Operating License Application.

Yours very truly,

GLK:bb  
Attach  
cc: JHolonich (2), w/a  
WSchum, w/a

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OATH OF AFFIRMATION

STATE OF KANSAS     )  
                          ) SS:  
COUNTY OF SEDGWICK )

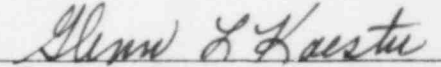
I, Glenn L. Koester, of lawful age, being duly sworn upon oath, do depose, state and affirm that I am Vice President - Nuclear of Kansas Gas and Electric Company, Wichita, Kansas, that I have signed the foregoing letter of transmittal, know the contents thereof, and that all statements contained therein are true.

KANSAS GAS AND ELECTRIC COMPANY

ATTEST:



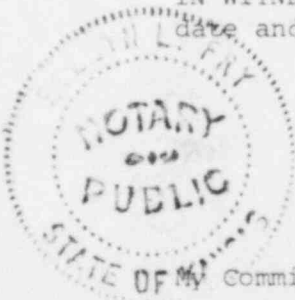
E.D. Prothro, Assistant Secretary

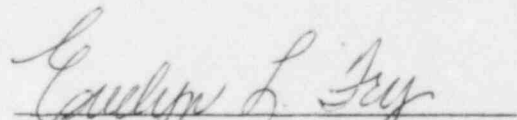
By   
Glenn L. Koester  
Vice President - Nuclear

STATE OF KANSAS     )  
                          ) SS:  
COUNTY OF SEDGWICK )

BE IT REMEMBERED that on this 13th day of January, 1984, before me, Evelyn L. Fry, a Notary, personally appeared Glenn L. Koester, Vice President - Nuclear of Kansas Gas and Electric Company, Wichita, Kansas, who is personally known to me and who executed the foregoing instrument, and he duly acknowledged the execution of the same for and on behalf of and as the act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the date and year above written.



  
Evelyn L. Fry, Notary

My Commission expires on August 15, 1984.

Revisions to the Final Safety Analysis Report Addendum and the reasons for the revisions are shown by numbered bars next to the modified text. The numbers correspond to the reasons given below.

1. Reason for Change

This change updates the organizational description and division of responsibility to be consistent with the revised organizational structure.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

The revised organizational description provides delineation of the authority and duties of positions performing quality functions. These organizational elements maintain sufficient authority and independence as required by Appendix B.

2. Reason for Change

This change is editorial and clears up a potential ambiguity in the text.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

The text has been modified to more clearly describe the Wolf Creek Program. No program changes have been made with regard to this text change.

3. Reason for Change

This change deletes potentially misleading and/or confusing text.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

The text has been modified to more clearly describe the Wolf Creek Program. The program has not been revised with regard to this text change.

4. Reason for Change

This change modifies the text to be consistent with portions of the FSAR which were previously revised.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

No program change has been made with regard to this text change.

5. Reason for Change

The position of Director Quality is a new position created by the organizational change. The experience requirements for this position are different from those of the position of Manager Quality Assurance. The new requirements are consistent with the guidelines of ANSI/ANS 3.1-1978.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

The change is consistent with the guidelines of ANSI/ANS 3.1-1978.

6. Reason for Change

The change was made to expand and clarify the description of the purpose of the Quality Program Manual.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

No change was made to the program with regard to these text changes.

7. Reason for Change

In accordance with the organizational changes described above, the Director Quality is now responsible for equipment inspection.

Basis for Concluding that the Revised Program Satisfies 10CFR50, Appendix B

Although the position responsible for implementation of this program has changed, the function of the program has not changed.



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### 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 (OQP) 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

The policy of Kansas Gas and Electric Company (KG&E) is to develop, implement, and maintain the OQP 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:

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 controlled by the OQP include preoperational testing, startup testing, operations, maintenance, refueling and modifications. Also controlled by the OQP are 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.

Early implementation of the OQP is 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 released by the construction forces to the KG&E startup organization,

the KG&E startup forces, and subsequently the operating forces, will start out conducting their activities under the systems of control which comprise the OQP.

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 OQP (e.g. procurement and receipt inspection). A description of the QA Program elements controlling these activities can be found 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 qualified in accordance with the Design and Construction QA Program qualification requirements. Both KG&E Construction and Operations shall be responsible for establishing procedures to control the interface between the construction organization(s) providing the activity and the using organization(s).

Included within the OQP 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 QA Division. 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 to the extent consistent with their effect on safety, KG&E formally designates and applies selected quality requirements to fire protection, environmental control, and security. Although not strictly safety-related, the applicable QA controls applied to these special scope programs are described as follows:

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

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### 17.2.1 ORGANIZATION

#### 17.2.1.1 Scope

KG&E has established an organizational structure for quality assurance activities. This section identifies the organizational structure; management positions and responsibilities; and delegation of authority for the development, implementation, and maintenance of the OQP. KG&E shall retain responsibility for the establishment and execution of the OQP, although certain program activities may be delegated to others. The organizational structure of KG&E's top management is shown in Figure 17.2-1. The organizational structure responsible for implementing the OQP is shown in Figure 17.2-2. The organization of the WCGS staff and the Quality organization will be shown in Figures 13.1-1 and 13.1-2, respectively.

#### 17.2.1.2 President and Chairman of the Board

The President and Chairman of the Board is responsible for promulgating quality assurance program requirements. He has responsibility for quality assurance, engineering, procurement, 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 OQP.

#### 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 QA Division, 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.

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The Wolf Creek Project Director reports directly to the Vice President - Nuclear. Also reporting to the Vice President-Nuclear are the Director Quality and various support services functions. The Vice President - Nuclear provides overall program direction on nuclear matters to several managers as shown in Figure 17.2-2.

### 17.2.1.3a Wolf Creek Project Director

The Wolf Creek Project Director reports to the Vice President-Nuclear and has direct responsibility for construction, engineering and support for the Wolf Creek Generating Station, Unit No. 1. The Wolf Creek Project Director provides day-to-day project direction to:

- a. Construction Manager
- b. Director Nuclear Operations
- c. Manager Nuclear Services
- d. Manager Nuclear Plant Engineering
- e. Plant Manager, and
- f. Manager Startup

The Vice President - Nuclear and the Wolf Creek Project Director together with the management personnel listed above function as a team to accomplish the design, construction and startup of the Wolf Creek Generating Station.

### 17.2.1.3b Manager Nuclear Administrative Services

The Manager Nuclear Administrative Services reports directly to the Vice President - Nuclear and is responsible for providing staff human resource, administrative and technical assistance to the Vice President - Nuclear. In addition, the Manager Administrative Services oversees department staffing efforts, aids in achieving social impact goals and provides guidance in application of policies to the work force. The Nuclear Coordinators and Supervisor Project Planning and Controls report to the Manager Administrative Services.

### 17.2.1.3c Manager Management Systems

The Manager Management Systems reports directly to the Vice President - Nuclear and is responsible for the Configuration Control, the Document Control and Records Management Programs. Through these programs, he 1) defines and documents the plant configuration, 2) provides evaluation of changes and implementation of changes to the plant configuration, 3) verifies incorporation of approved changes and 4) provides configuration records to support plant operation.

#### 17.2.1.4 Director Quality

The Director Quality reports directly to the Vice President - Nuclear and devotes full attention to WCGS quality matters. He is responsible for the development and for assuring implementation of the OQP. The Director Quality is responsible for staffing the QA Division and for assuring that QA and QC personnel are adequately trained and experienced to perform their assigned tasks. He carries out the directives of the Quality Assurance Committee and provides the Committee with information related to the effectiveness of the implementation of the OQP. The qualification requirements for the Director Quality position are: A bachelor degree in Engineering or related sciences plus six years of professional level experience in Nuclear Quality Assurance or six years of supervisory experience plus two years of Nuclear Quality Assurance experience, or equivalent professional level experience in nuclear quality assurance including six years of supervisory/management experience.

##### 17.2.1.4.1 Manager Quality Assurance (WCGS)

The Manager Quality Assurance (WCGS), who reports to the Director Quality, devotes full attention to QA matters. He is responsible for verifying that an adequate QA program is developed and implemented for safety-related activities which occur at the WCGS. The Manager Quality Assurance (WCGS) is assigned [work location] to the Wolf Creek site. He maintains a staff and provides them with technical and administrative direction. He is responsible for establishing and implementing a comprehensive plant site audit program. The qualifications of the Manager Quality Assurance (WCGS) are a Bachelor's Degree in Engineering or related science and at the time of initial core loading or appointment to the position and will have four years experience in the field of quality assurance or equivalent number of years of nuclear plant experience or combination of the two, at least one year shall be nuclear power plant quality assurance implementation experience.

##### 17.2.1.4.2 Manager Quality Assurance (Home Office)

The Manager Quality Assurance (Home Office) reports to the Director Quality and is responsible for verifying that an adequate QA program is developed and implemented for safety-related activities which occur at the corporate office and other locations remote from the WCGS. He maintains a staff and provides them with technical and administrative direction. He is responsible for establishing and implementing a comprehensive audit program for offsite activities of KG&E, and KG&E's suppliers, consultants, and agents. He coordinates quality verification activities with other KG&E departments and with external QA organizations. His qualifications are at a minimum equivalent to those of an Audit Team Leader as set forth in KG&E's procedures.



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### 17.2.1.4.2a Superintendent Quality Control

The Superintendent Quality Control reports to the Director Quality and is responsible for the conduct of operating quality control activities and personnel at WCGS.

### 17.2.1.4.3 Stop Work Authority

The Director Quality is authorized by the Vice President - Nuclear to stop work on ongoing quality activities which do not comply with established requirements. For onsite activities, this authority is delegated to the Manager Quality Assurance (WCGS) by the Director Quality. During the operating phase, these personnel have the authority to stop unsatisfactory work during repair, maintenance, and refueling activities and the authority to recommend to the Plant Manager stop work affecting the continuation of plant operation. Other stop work authority evolving from hold points, witness points, and mandatory reviews and approval will be delineated in procedures. The continuation of an activity which would preclude identification and correction or increase the extent of the deficiency is subject to stop-work action by the Quality Assurance Division.

#### 17.2.1.4.4 Quality Assurance Division Personnel Independence

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 Vice President - Nuclear for overall program direction and to the Wolf Creek Project Director for day-to-day project 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 Vice President-Nuclear for overall program direction and to the Wolf Creek Project Director for day-to-day project 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. He is also responsible for processing and maintaining records for the KG&E general office.

#### 17.2.1.7 Director Nuclear Operations

The Director Nuclear Operations reports to the Vice President-Nuclear for overall program direction and to the Wolf Creek Project Director for day-to-day project direction. He is responsible for the operations, training and startup departments. The Plant Manager and the Manager Startup report to the Director Nuclear Operations for overall program direction. These two managers receive day-to-day project direction from the Wolf Creek Project Director. 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 for overall program direction and to the Wolf Creek Project Director for day-to-day project direction. He is responsible

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for the safe operation of the WCGS. He controls plant activities through supervisors as discussed in Section 13.1. He has the prime responsibility for safe operation of the plant. The plant staff, under the direction of the Plant Manager, develops detailed procedures and instructions for testing and operation of the station.

### 17.2.1.7.2 Startup Manager

The Startup Manager reports to the Director Nuclear Operations for overall program direction and to the Wolf Creek Project Director for day-to-day project direction. He is responsible for the overall direction and administration of the functions and activities required to conduct the WCGS startup program. Chapter 14.0 presents a description of the Startup Organization and delineates the Startup Manager's responsibilities. When the startup program has concluded, the Startup Organization will be dissolved.

### 17.2.1.7.3 Manager Nuclear Training

The Manager Nuclear Training reports to the Project Manager and is responsible for the overall training activities of the Nuclear Department. He is responsible for insuring training staff qualifications, including reviewing instructor evaluation records with the Training Supervisor and Simulator Supervisor. He is responsible for reviewing the content of training programs for technical completeness and compliance with regulatory standards. He is also responsible for auditing the quality of on-site training programs. The Manager Nuclear Training is also responsible for training programs for Corporate office personnel involved in support of WCGS during normal operations, preparedness for response to off-normal incidents, and long-term recovery programs.



#### 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.

#### 17.2.1.9 Quality Assurance Committee (QAC)

KG&E has established a Quality Assurance Committee (QAC). The prime responsibility of this committee is to measure the effectiveness of KG&E's OQP and initiate changes when warranted. The permanent members of this Committee are the Vice President-Nuclear, Vice President-Engineering, Legal Counsel, Superintendent Production Fossil Plants and the Director Nuclear Operations.

In carrying out their responsibilities, the members of the Quality Assurance Committee shall utilize information received from internal audit reports; audit reports of other organizations supplying services or materials which are important to safety; summaries of nonconformance reports, corrective action reports, and NRC I&E inspection reports and notices of violation, if any.

The QAC shall meet at least once during each calendar quarter. The chairman of the committee is the Vice President-Nuclear, who may call additional meetings as necessary. The committee will not concern itself with minor isolated quality problems but will take a broad overview of KG&E's OQP and make decisions which will provide meaningful adjustments to the OQP. The committee will review deficiencies and will establish actions or affirm that adequate corrections are being made.

Notices of violation received from the NRC and responses made to the NRC which are quality related shall be reviewed by members of the QAC. The Chairman will assign the responsibility for preparing reports to be sent to the NRC and will review and issue all such reports.

#### 17.2.1.10 Safety Review Committees

Safety review committees shall be established at the WCGS (the Plant Safety Review Committee) and at the KG&E General 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.

## 17.2.2 QUALITY ASSURANCE PROGRAM

### 17.2.2.1 Scope

KG&E has established an OQP which controls activities affecting quality. The program encompasses those quality activities necessary to support the operating phase of the WCGS. The total OQP 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.

### 17.2.2.2 Identification of Safety-Related Items

The scope and activity applicability of the OQP 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, Manager Nuclear Plant Engineering, and Director Nuclear Operations.

During the operational phase the OQP 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 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.

### 17.2.2.3 Operating Quality Program Implementation

The OQP shall be implemented at least 90 days prior to fuel loading. The OQP shall be implemented throughout the operating life of the WCGS. Special equipment, environmental conditions, skills, or processes will be provided as necessary to demonstrate effective implementation of the OQP.

Implementation of the OQP 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 responsible for providing approved procedures prior to initiating the activity.

Commencing with the issuance of an operating license, changes to the quality program description in this chapter of the FSAR shall be submitted to the NRC at least annually. If any such change reduces the commitments previously made, NRC approval must be obtained prior to implementation. | 3

#### 17.2.2.4 Operating Quality Program Documentation | 1

Consistent with the schedule for accomplishing operations phase activities, the OQP shall be established and documented. The OQP shall be documented as follows to meet program objectives: | 1

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### 1. Quality Policy

The governing policy statement of the OQP is approved by the President and Chairman of the Board and is contained in the Quality Program Manual.

### 2. Quality Program Manual (QPM)

The QPM contains a statement of scope, responsibility and authority, and a brief discussion of how KG&E implements each of the requirements of 10CFR50 Appendix B at and in support of the WCGS. The introduction to the QPM includes a governing policy statement by the KG&E President and Chairman of the Board.

### 3. Wolf Creek Project Policy Manual (WCPPM)

The WCPPM defines project policy relative to the management of the Wolf Creek Project. Specific responsibilities and authorities are defined for the various individuals and organizations involved. The manual also contains general procedures which are applicable to all KG&E personnel assigned to the project. This manual and changes thereto are approved and issued by the Vice President-Nuclear.

### 4. Procedures Manuals

The WCGS Procedure Manuals and the KG&E Procedures Manual provide control for KG&E activities covered by the OQP.

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 OQP 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.

#### 17.2.2.6 OQP Verification of Implementation

Achievement of the requirements of the OQP shall be verified through independent and integral control activities. The Quality Assurance Division under the Director Quality shall audit general office internal and interfacing quality activities and shall conduct audits and surveillances of the operating plant. These audits shall assure overall implementation verification of the OQP. Quality Assurance Division personnel will perform audit, surveillance and inspection of quality activities performed by the operating organization, consultants, suppliers, and other KG&E personnel.

#### 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 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 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.

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:

1. Safety rules
2. Health-physics control and monitoring of radiation exposure

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3. Plant security rules
4. Emergency provisions
5. Applicable operating quality program requirements |'



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; and 2) the substitution of equivalent hardware or the substitution of nonsafety-related parts or components into safety-related components or systems. 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.

Requests for design changes affecting safety-related structures, systems, and components may originate with or be processed through the Manager Nuclear Plant Engineering. Design changes engineered onsite shall be the responsibility of the Plant Manager.

Procedures shall specify requirements for the review and approval of design changes by the organizations or individuals that performed the original design, if appropriate. Design control 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 involving 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 of the design for operability, maintainability, inspectability, SAR commitment compatibility, 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

#### 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 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.

##### 17.2.4.2 Procurement Responsibility

Responsibility for procurement does not reside in a single group but is a joint effort of KG&E Nuclear divisions (WCGS staff, Nuclear Plant Engineering, and Nuclear Services), Quality Assurance, and the Purchasing Department. These groups have responsibility for technical content, quality requirements, and commercial provisions respectively.

##### 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 OQP, 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



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Reviews of purchasing documents by QA Division 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. |

#### 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 Assurance Division personnel. | 2

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 utilize verification methods by the purchaser in lieu of supplier controls.

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 Assurance Division personnel as detailed in the administrative control 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. | 2

#### 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. Letters of Intent shall specify that no quality-affecting activities shall begin until an approved purchase order or contract is executed; however, in the event a Letter of Intent is issued for the purpose of securing a binding agreement prior to the issuance of such documents, it shall specify the applicable quality and technical requirements. Letters of Intent shall be reviewed by legal counsel and Nuclear Plant Engineering, approved by the Quality Assurance Division and issued by the Purchasing Department. If the contract is to be for nuclear fuel-related goods or services the Nuclear Services division shall perform the review instead of Nuclear Plant Engineering. | 2

#### 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.

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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 individuals who approved the original requirements for approval. If the changes cannot be approved, a different vendor shall be selected.

### 17.2.4.9 Purchase Order Award

During the WCGS operating life, procurements 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 OQP.

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. 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.

### 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.

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 Assurance Division 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.

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### 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 OQP shall control activities affecting quality by providing measures for: |1

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 OQP. |1,2

#### 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 activities which affect the function of safety-related structures, systems, and components.

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 organizations 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 Assurance Division for compliance with OQP requirements. |

## 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 Assurance, Procurement (see Subsection 17.2.4), Nuclear Plant Engineering and Management Systems. Management Systems is responsible for the overall project document control program.

### 17.2.6.2 Preparation Controls

Documents describing the KG&E OQP 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 OQP shall be adhered to for the preparation, review, approval, and revision of procedures, instructions, or drawings.

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;



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- e. Instructions and Procedures for activities such as fabrication, construction, modification, installation, testing, inspection and operation;
- f. As-built drawings;
- g. Wolf Creek Project Policy Manual;
- 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 or prepared by others exclusively for KG&E's use.

| 2

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, 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.

### 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 OQP. WCGS staff and other KG&E 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.

### 17.2.6.6 Procedure Review

The review by the Quality Assurance Division 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 QA Division review will also verify that written procedures/instructions establish the inspection requirements, methods of inspection and acceptance criteria.

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 OQP or surveillance program may not require preaward source evaluation or audits to assure quality.

17.2.7.3 Bid Evaluations and Award

Quality Assurance Division, 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. |2

Bids or proposals shall be evaluated by the originating organization for conformance to procurement document requirements. The Quality Assurance Division 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 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 hold and witness points shall be documented at this time if not already specified in procurement documents.

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. Selected

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verification methods shall be indicated as inspections, examinations, tests, or documentation.

When post-installation testing is used for the acceptance of an item the QA Division shall review and approve the administrative procedure which controls acceptance testing. The implementing procedure shall be reviewed by the PSRC and approved by the Plant Manager. Review of the test documentation including data shall be performed by the QA Division. | 7

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3. Surveillance of critical manufacturing processes
4. Auditing supplier records to verify certification validity and the proper resolution of nonconformances.

### 17.2.7.8 Receiving Inspection

Acceptance by receiving inspection will be utilized as a prime method of verification and will be utilized as the sole means of item acceptance when items are relatively simple and standard in design and manufacture. When other methods are utilized, receiving inspection shall be employed to verify that items have not sustained damage due to handling, shipping, or storing.

Receiving inspection shall be performed by the QA Division in accordance with written procedures. On complex or special items other plant personnel may assist in performing receipt inspection. These personnel shall be qualified in accordance with the controls described in Sections 17.2.10 and 17.2.11, as applicable. In the event of a major modification, receiving inspection may be delegated to an outside organization(s).

Receiving inspection activities shall include:

1. Identifying materials, parts, and components and their status upon receipt by tagging or other acceptable means of identification or segregation and controlling items in receiving inspection hold areas separate from the storage facilities for accepted items. Identification of items shall correspond to the identification noted in related purchase documents and receiving documentation.
2. Verification of items for their acceptance, including examination for shipping damage, correctness of identification, and specified quality documentation.
3. Inspecting or, where appropriate, testing using approved procedures and calibrated tools, gauges, and measuring equipment for verification acceptance of items, including those from off-the-shelf suppliers.

The acceptance of services is very much a function of the service performed and may or may not involve QA Division personnel. For example, if the service is for NDE, the QA Division 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 QA Division, 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 QA Division personnel.

#### 17.2.7.11 Final Acceptance

Final acceptance of items shall be by QA Division 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 involved organizations. Specified inspection, test, and other records shall be available at the plant prior to installation or use.



## 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 KG&E requirements. The qualification of processes and personnel shall be documented and maintained.

17.2.9.2 Procedural Control

Plant procedures shall prescribe the requirements for the qualification of KG&E procedures, personnel, and equipment. The involvement of the QA Division in the control of special processes includes the review of plant procedures for the adequate inclusion of quality requirements. The QA Division 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. | 2  
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Plant and other responsible KG&E 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 KG&E engineering organizations shall receive an independent review to assure that quality requirements and acceptance criteria have been incorporated and recorded.

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### 17.2.9.3 Control of Outside Contractors

Qualified outside organizations may be employed to perform special processes and shall be required to conform to the requirements described herein. Special process procedures submitted by an outside organization(s) in accordance with procurement document requirements shall receive a technical review by the responsible engineering organization and a quality review by the Quality Assurance Division.

### 17.2.9.4 Records Control

Qualification records of plant procedures detailing special processes and plant equipment, as appropriate, shall be maintained by the applicable plant organization. Qualification records of plant personnel performing special processes shall be maintained under the direction of the Plant Manager. |

### 17.2.9.5 Qualification of NDE Personnel

Nondestructive examination personnel shall be qualified in accordance with procedures established per the requirements of the American Society for Nondestructive Testing Standard SNT-TC-1A.



4. Acceptance and rejection criteria
5. Identifying required procedures, drawings and specifications, and revisions
6. Recording inspector or data recorder and the results of the inspection operation
7. Specifying necessary measuring and test equipment, including accuracy requirements.
8. Evaluation of the inspection results and the person performing the evaluation.

#### 17.2.10.3 Process Monitoring

Process monitoring of work activities, equipment, and personnel shall be utilized as a control if inspection of processed items is impossible or disadvantageous. Both inspection and process monitoring shall be provided when control is inadequate without both. A suitable level of confidence in structures, systems, or components on which maintenance or modifications have been performed may be attained by inspection. As appropriate, an augmented inspection program shall be implemented until such time as a suitable level of performance has been demonstrated.

Process monitoring of ongoing activities at the WCGS shall be at intervals based on the status and safety importance of the activities. Guidelines shall be established to indicate the minimum frequency of process monitoring for each ongoing activity and to provide a basis for subsequent monitoring planning.

The monitoring of processes shall be performed to verify that quality affecting activities are being performed in accordance with documented instructions, procedures, drawings, and specification.

#### 17.2.10.4 Inservice Inspection

Required inservice inspection or process monitoring of structures, systems, or components shall be planned and executed. Inspection methods shall be established and executed to verify that the characteristics of an item continue to remain within specified limits.

The Manager Nuclear Plant Engineering or the Plant Manager shall be responsible for assuring the development of a preservice and inservice (PSI/ISI) inspection program, procedures, and reference preservice and inservice examination plans; the updating of the reference plans to reflect as-built conditions and the technical requirements of the applicable code edition and addenda; and the securing of inspection and consulting services.

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The services of an outside organization may be secured for the conduct of PSI/ISI inspections. The Plant Manager shall direct the performance of the inservice 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 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 Assurance Division. Qualification of KG&E 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 QA Division 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.

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17.2.10.8 Qualification Program Responsibilities

Plant procedures and procurement documents shall prescribe the qualification requirements of inspection personnel. The Quality Assurance Division shall be responsible for assuring that inspection personnel have received appropriate technical and quality training prior to their certification. The Quality Assurance Division shall maintain documented evidence of qualifications of KG&E personnel performing plant acceptance inspection functions. The Quality Assurance Division shall audit the personnel qualifications and verify the independence of all personnel performing inspections of safety-related or special scope equipment or services at or in support of the WCGS.

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### 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

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.

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 KG&E organizations or outside organizations shall perform testing activities, including implementing test procedures and the evaluation and reporting of test results. The assignment of plant 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 KG&E 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.

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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 insure documented evidence is available of qualifications of personnel performing plant test functions. | 1

### 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. 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 submitted to the JTG for its review and subsequent recommendation for approval to the Startup Manager and Plant Manager. | 1

The results of special tests performed after fuel load shall be 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 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. | 2  
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### 17.2.11.6 Preoperational and Startup Tests

The Startup Manager shall be responsible for the administration and conduct of the preoperational testing program. The Plant Manager shall be 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 prepared and approved under the requirements of the Wolf Creek administrative procedures. Preoperational test procedures are reviewed by qualified personnel and the JTG, and approved by the Startup Manager. Initial startup test procedures and post plant acceptance test procedures are reviewed by qualified personnel and the PSRC, and approved by the Plant Manager. | 1  
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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.



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### 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.

#### 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

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maintained to permit a determination of calibration intervals. M&TE requiring periodic calibration will have a calibration label to indicate the due date of the next calibration. This label will be attached to the instrument, or to its case where this is not practical. A special calibration shall be performed when the accuracy of any M&TE is suspect.

2. The unique identification of M&TE.
3. The traceability to calibration test data.
4. The traceability of reference standards to nationally recognized standards and the periodic revalidation of reference standards.
5. The maintenance of records which indicate the status of each item of M&TE, maintenance history, calibration results, anomalies, and most recent and next scheduled calibration dates. A recall system shall be established to assure that equipment which is outside its calibration interval is not used.
6. The maintenance and control of M&TE not in use.
7. Provisions to control purchase requirements and acceptance tests for M&TE sent out for calibration and for new or replacement M&TE, including the requirements for accuracy, stability, and repeatability.
8. The calibration of M&TE should be against a working standard having an accuracy of at least four times the specified tolerance of the M&TE. When this is not practical, standards shall have an accuracy which assures that the equipment being calibrated will be within its required tolerance. Management review and approval of calibration procedures provides authorization where any specific calibration ratio cannot be met or where calibrating standards do not have greater accuracy than the M&TE being calibrated.

The controls stated above are also generally applicable to permanently installed process instrumentation. The most significant differences in the quality controls for the two different categories of instruments are:

1. All M&TE used for acceptance measurements or calibration of safety-related plant instrumentation must be controlled under this section. Only safety-related permanently installed process instrumentation must be so controlled.

17.2.13.4 Inspection

The Plant Manager shall establish a program which identifies special handling tools and equipment and provides for routine maintenance and inspection in accordance with documented procedures which specify appropriate acceptance criteria. Routine inspections performed by the plant organization shall indicate the acceptability or nonconformance of equipment and rigging. Periodic inspections shall be performed by the Quality Assurance Division and shall be supplemented by non-destructive examinations and proof tests as delineated in procedures for items requiring special handling. Personnel performing nondestructive examination and proof testing shall be qualified in accordance with the requirements of Sections 17.2.9 and 17.2.11, respectively.

17.2.13.5 Procurement Controls

Procurement documents and procedures shall address packaging requirements which afford protection from the possible degradation of quality during shipping, handling, or storing. The packaging protection specified shall vary in degree consistent with the item's appropriate protection classification. Similarly, the mode of transportation employed shall be consistent with the protection classification of items.

17.2.13.6 Radioactive Materials

Measures shall also be established to control the shipping of licensed radioactive materials in accordance with 10 CFR 71.

17.2.13.7 Records

Records shall be maintained to document activities regarding handling, shipping, and storing which affect quality.

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### 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. | 2

#### 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.

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 turn-over from construction are the responsibility of the Quality Assurance Division. Items segregated and placed in quarantine are the responsibility of the plant organization. | 1

Certified welders will be issued welder identification stamps by the Maintenance Supervisor. Welds made in compliance with the ASME Code and other welds on items important to safety will be stamped.

#### 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

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### 17.2.15 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

#### 17.2.15.1 Scope

Nonconformances identified under the KG&E OQP shall be controlled to prevent the inadvertent use of defective or indeterminate materials, parts, and components and to identify documentation inadequacies, and reportable activities. Nonconformances, therefore, include material deficiencies, malfunctioning or inoperative structures, systems and components, and departures from specified procedural requirements. Accordingly, measures shall be established regarding identification, documentation, status control, disposition, and notification of affected parties. |1

#### 17.2.15.2 Nonconformance Controls

Nonconformances shall be reviewed and accepted, rejected, repaired, reworked, or conditionally released in accordance with documented procedures. Repaired and reworked items shall be reinspected in accordance with the original inspection or test requirements or acceptable alternatives. Reinspection results and operational data, gathered subsequent to repair or rework, are documented on nonconformance reports, inspection reports or other suitable type documents. Measures shall be established to conditionally release nonconforming items whose disposition is pending and an engineering evaluation indicates that further work or activity will not contribute adversely to the nonconformance or preclude identification and correction. Such dispositions shall be concurred in by the Quality Assurance Division. Nonconformances shall be controlled by report documentation, tagging, marking, logging, or physical segregation. |1,2

Nonconformance documentation shall be processed in accordance with documented procedures and shall identify the specifics of the nonconformance. Nonconformance documentation shall state the particular drawing, procedure, specification, or other requirement not met; shall record the disposition; and shall register the signature of an appropriate approval authority. The WCGS staff, Nuclear Services, or Nuclear Plant Engineering, as applicable, shall be responsible for assuring the disposition of Nonconformance Reports (NCRs).

Procedures shall prescribe the individuals or groups assigned the responsibility and authority to approve the disposition of nonconformances. The disposition of nonconforming items shall be provided by the original design organization or by an equivalent organization which has access to the original design basis information. Within KG&E this includes engineers within the Nuclear Plant Engineering, Nuclear Services and Plant Staff organizations.



### 17.2.15.3 Reporting Methods

Under the KG&E OQR, NCRs, audit reports, work requests, surveillance reports, and licensee event reports may be employed to identify and control nonconformances. Nonconformance logs may be utilized to identify and maintain the status of nonconformance documents. |1,2

Nonconformance Reports document nonconforming materials, parts, or components and documentation inadequacies. Licensee Event Reports, as required by Federal Regulations, shall be used to identify certain operating nonconformances. Nonconformance logs may be employed by the Quality Assurance Division during the initial test program, and, subsequent to plant modifications, to track nonconformances requiring resolution. Nonconformances shall be reviewed for reporting applicability under 10 CFR 21. |1

### 17.2.15.4 Disposition

Material nonconformance disposition categories are:

1. "Use as is" or "acceptable"  
(including conditional releases)
2. "Reject" or "not acceptable, repeat"
3. "Rework" in accordance with documented procedures
4. "Repair" in accordance with documented procedures.

### 17.2.15.5 Procurement Controls

Plant and other KG&E organization procedures shall prescribe measures for the control and disposition of KG&E purchased items and services identified by outside organizations as nonconforming. Procurement documents specify those nonconformances which shall be submitted to KG&E for approval of the recommended disposition. Actions taken in response to these nonconformances shall require documentation and shall be forwarded to KG&E along with the hardware and accompanying quality verification documentation. Plant personnel shall approve the recommended disposition of nonconformances relating to plant initiated hardware and services procurements. The technical support staff shall be responsible for assuring the processing of these supplier-recommended dispositions. Similarly, other KG&E or outside organizations shall approve or be requested to approve dispositions of nonconformances regarding procurements they initiate. An approved



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disposition of a nonconformance which allows a reduction in the requirements of a safety-related structure, system, or component shall be treated as a design change and, therefore, subject to the appropriate controls prescribed in Section 17.2.3.

### 17.2.15.6 Reportable Nonconformances

Results of investigations, recommendations, and event summaries regarding violations, deviations, and reportable events which are reported to the NRC in writing within 24 hours, shall be reviewed by the PSRC and NSRC.

### 17.2.15.7 Trend Analysis

Nonconformance reports shall be analyzed by the Quality Assurance Division for identification of potential unsatisfactory quality trends. The results of these analyses shall be reported to management. Significant adverse trends shall be handled in accordance with Section 17.2.16. | 2

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 OQP. Corrective actions associated with the resolution of NCRs, audit, and surveillance 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 OQP deficiencies.

17.2.16.2 Corrective Action Report (CAR)

Procedures shall provide instructions for identifying, reporting, and initiating corrective action to preclude recurrence of significant adverse conditions. A Corrective Action Report (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, 10CFR-50.55(e) reports or similar regulation required reports are prepared.

CARs shall be initiated by the Quality Assurance Division. CARs are transmitted to the responsible KG&E 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.

Nuclear Plant Engineering, Nuclear Services or the WCGS staff, as appropriate, shall review all 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.

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### 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 KG&E and shall be in compliance with the standards and regulations identified in Table 17.2-3. At a minimum, the records system shall apply to operating phase records associated with OQP 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. 1,2

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 reports, procedures, and calibration procedures and reports required to demonstrate compliance with license commitments. 2

#### 17.2.17.2 Responsibilities

A records system shall be established by the plant and other KG&E 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 Nuclear Services is responsible for assuring the handling and maintenance of Quality Assurance records generated, received, and stored at the home office. The Plant Manager shall provide for the administration of the Quality Assurance record system at the WCGS. The Quality Assurance Division shall audit the home office and the WCGS Quality Assurance record storage systems to verify their effectiveness. 1,2

#### 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

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### 17.2.18 AUDITS

#### 17.2.18.1 Scope

A comprehensive audit program in compliance with ANSI N45.2.12 shall be established and implemented by KG&E to verify internal and external quality activity compliance with the OQP. 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. Non-conformances and program deficiencies shall be identified and corrective action shall be verified. | 1

The KG&E 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 QA Division 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 Assurance Division shall establish a program which provides for the qualification and training of audit and surveillance personnel. | 1, 2

The Director Quality shall be responsible for assuring the implementation of a comprehensive system of planned audits to verify compliance with the OQP. The Quality Assurance Division 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 OQP. The Quality Assurance Division 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. | 1, 2

The Manager Quality Assurance (WCGS) is responsible for assuring that the OQP 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 | 2

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path shall exist between the Manager Quality Assurance (WCGS) and the Plant Manager, thus providing a direct path to inform management regarding conditions affecting quality. | 2

The Manager Quality Assurance (Home Office) is responsible for assuring that the operating quality program is effectively implemented for offsite safety-related and special scope activities and directs full attention to their effort. He reports on the program effectiveness directly to the Director Quality. | 1

A communication channel shall exist between the Manager Quality Assurance (Home Office) and the Nuclear Department home office management staff thus providing a direct path to inform them of conditions adversely affecting quality. |

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. | 2

Personnel in the Quality Assurance Division 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 KG&E, 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 Assurance Division. 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 OQP 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. | 3 | 2 | 1, 2 | 1

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 OQP, and overall coordination and scheduling of audit activities. The Quality Assurance Division shall review the OQP audit program annually to assure audits are being accomplished in accordance with the requirements described herein. | 1 | 1



Audits shall be conducted using written plans in accordance with Quality Assurance Division 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 OQP 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 Assurance Division 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 OQP, 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 |

shall also periodically review the onsite audit program as developed by the Quality Assurance Division to assure that audits are being performed in accordance with the requirements of the OQP. Appropriate levels of management will be provided copies of internal and external audit reports. |

#### 17.2.18.6 Supplier Audits

External audits shall generally be conducted by the Quality Assurance Division 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.

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

TABLE 17.2-1

## CONTROLLED PROCEDURE MANUALS

<u>Identification</u>	<u>Description</u>	<u>Approval</u>
Wolf Creek Project Policy Manual	A manual consisting of policies and general procedures which have applicability to all project personnel. These documents establish specific responsibilities and authority of the individuals and organizations involved with the project, and establish common methods for activities performed by the nuclear divisions which must be uniform.	All sections of this manual will be reviewed and commented upon by the Division Heads.  Approval and issuance of this manual and changes thereto will be 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. The Operations section of the Station Manual 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 with the applicable procedural controls under the direction of the Startup Manager. These procedures implement the requirement specified in the OQM, where required, regarding WCGS internal and external interfacing of operating quality activities. These manuals include administrative controls for the conduct of an	For the Operations Organization, 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 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.  QA personnel will review the administrative and inspection procedures contained in this manual and any revisions or changes thereto.

TABLE 17.2-1a

## CONTROLLED PROCEDURE MANUALS

<u>Identification</u>	<u>Description</u>	<u>Approval</u>
Wolf Creek Generating Station Procedure Manuals (cont'd)	efficient and orderly preoperational and start-up test program as well as the plant operating procedures.	
KG&E Procedures Manual	A Manual consisting of a set of procedures prepared by various responsible KG&E divisions. These pro- cedures are approved by the various division heads and serve to implement the requirements specified in the OQM regarding off-site and on-site quality activities of the Divisions which support the startup and oper- ation of the WCGS.	All safety-related procedures within this manual and all revi- sions thereto shall be prepared by the responsible division or function and shall receive a quality review by the Quality Assurance Division. Final approval of all safety-related procedures and revisions to this manual is by the responsible division head and the Director Quality.

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TABLE 17.2-2

OQP IMPLEMENTING PROCEDURAL COVERAGE

ACTIVITY	10 CFR 50, APPENDIX B
Station Operations (including nuclear fuel management and station operations, maintenance and modification control)	I, II, V, VI
Preparation, Review, Approval, and Revision of OQAP Manuals	I, II & VI
Preparation, Review, Approval, and Revision of Implementing Procedures	II, V & VI
Personnel Indoctrinations, Training and Qualification	II
Design Control (including control of design criteria, performance of design review and verification, and control of design interfaces)	III
Preparation, Review, Approval, and Revision of Specifications	III, IV & V
Preparation, Review, Approval, and Revision of Drawings	III & V
Preparation, Review, Approval, and Revision of Requisitions	III & IV
Preparation, Review, Approval, and Revision of Engineering Service Agreements	III
Design Change Control	III
Preparation, Review, Approval, and Revision of Contracts	IV
Document Control	VI
Bid Requests and Evaluation	VII

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TABLE 17.2-2 (sheet 2)

OQP IMPLEMENTING PROCEDURAL COVERAGE

1

<u>ACTIVITY</u>	<u>10 CFR 50, APPENDIX B</u>
Supplier Evaluation, Selection, and Control (including procurement change controls)	VII
Material Control (including receipt, identification, handling, storage, and shipping)	VIII & XIII
Special Process Controls	IX
Inspection Controls	X & XII
Test Control	XI & XII
Inspection, Test, and Operating Status	XIV
Nonconformance and Corrective Action Controls	XV & XVI
Receipt, Storage and Transfer of Records	XVII
Quality Program Audits and Evaluations	II & XVIII
Auditor Training and Qualifications	XVIII



TABLE 17.2-3

QUALITY PROGRAM COMMITMENTS TO REGULATORY  
GUIDES AND ENDORSED CODES AND STANDARDS

	<u>REGULATORY GUIDE</u>	<u>ENDORSED STANDARD/CODE</u>
1.8,*	"Personnel Selection and Training" (Rev. 2, 2/79)	ANS 3.1 - 1978
1.26,*	"Quality Group Classifications and Standards for Water-, Steam- and Radioactive-Waste-Containing Components of Nuclear Power Plants (Rev. 3, 2/76)	None
1.29,*	"Seismic Design Classification" (Rev. 3, 9/78)	None
1.30,*	"Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electrical Equipment" (Rev. 0, 8/72)	ANSI N45.2.4 - 1972
1.33,*	"Quality Assurance Program Requirements (Operation)" (Rev. 2, 2/78)	ANSI N18.7 - 1976/ANS-3.2
1.37,	"Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants" (Rev. 0, 3/73)	ANSI N45.2.1 - 1973
1.38,*	"Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants" (Rev. 2, 5/77)	ANSI N45.2.2 - 1972
1.39,*	"Housekeeping Requirements for Water-Cooled Nuclear Power Plants" (Rev. 2, 9/77)	ANSI N45.2.3 - 1973
1.58,*	"Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel" (Rev. 1, 9/80)	ANSI N45.2.6 - 1978
1.64,	"Quality Assurance Requirements for the Design of Nuclear Power Plants" (Rev. 2, 6/76)	ANSI N45.2.11 - 1974

# WOLF CREEK GENERATING STATION UNIT NO. 1 FINAL SAFETY ANALYSIS REPORT

FIGURE 17.2-2  
KG&E ORGANIZATION FOR  
NUCLEAR OPERATIONS

