UNION ELECTRIC

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Donald F. Schnell
Vice President

June 10, 1988

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

ULNRC-1786

Gentlemen:

DOCKET NO. 50-483
CALLAWAY PLANT
OPERATING QUALITY ASSURANCE MANUAL, REVISION 11
Reference: 1) ULNRC-1529, Dated June 11, 1987

Furnished herewith for your review and approval is a copy of the Callaway Plant Operating Quality Assurance Manual (OQAM), Revision 11 update pages. Pursuant to the requirements of 10CFR50.54(a) and 10CFR50.71(e) (3) (i), the OQAM has been revised to incorporate changes to the Operating Quality assurance Program (OQAP) description made since the last docketed revision transmitted by Reference 1.

In addition to the OQAM, Rev. 11 update pages, please find enclosed one copy each of the following:

1. OQAM (Rev. 11) mark-up, identifying any changes made through the use of underlined bold lettering and strikeovers.

2. Explanations and justifications for changes to the OQAM.

Included in OQAM (Rev. 11) are the changes resulting from enhancements to the organization.

The revised OQAM (Rev. 11) continues to satisfy the requirements of 10CFR50, Appendix B.

All of the changes have been evaluated by Union Electric and are not considered reductions in OQAP commitments as previously accepted by the NRC. They therefore do not require review and approval by the NRC prior to implementation.

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Mailing Address: P.O. Box 149, St. Louis, MO 63166

If there are any questions, please contact us.

Very truly yours,

Donald F. Schnell

FWE/kea

Attachments: 1) OQAM (Rev. 11) update pages
2) OQAM (Rev. 11) mark-up report
3) Explanations and justifications for changes to the OQAM

STATE OF MISSOURI)
) S S
CITY OF ST. LOUIS)

Donald F. Schnell, of lawful age, being first duly sworn upon oath says that he is Vice President-Nuclear and an officer of Union Electric Company; that he has read the foregoing document and knows the content thereof; that he has executed the same for and on behalf of said company with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By Donald F. Schnell
Donald F. Schnell
Vice President
Nuclear

SUBSCRIBED and sworn to before me this 10th day of June, 1988

Barbara J. Pfaff

BARBARA J. PFAFF
NOTARY PUBLIC, STATE OF MISSOURI
MY COMMISSION EXPIRES APRIL 22, 1989
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ATTACHMENT 1

OQAM, REVISION 11

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OPERATING QUALITY ASSURANCE MANUAL (OQAM)

1.0 ORGANIZATION

1.1 UE has established an organization 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 Operating Quality Assurance Program (OQAP). UE shall retain responsibility for the establishment and execution of the OQAP, although certain Program activities may be delegated to others. The organization responsible for implementing appropriate portions of the OQAP is shown in Figure A of the OQAM. The Callaway Plant operating organization is shown in Figure B of the OQAM.

1.2 The Executive Vice President is responsible to the President of UE Company for the establishment and implementation of the Quality Assurance Program requirements. He has ultimate responsibility for quality assurance, engineering, construction, and operation of the Callaway Plant.

1.3 Under the Executive Vice President, the Vice President, Nuclear is responsible for initiating the Quality Assurance Program, formulating the policy, and authorizing and assuring Program implementation. He is responsible for directing activities within the Nuclear Function which support the engineering, construction, testing, and operation of the Callaway Plant and coordinating support activities performed by others who are rot under his direct administrative control. He has corporate responsibility for the operation and physical control of the Callaway Plant.

1.4 The Assistant to the Vice President, Nuclear reports to the Vice President, Nuclear and is responsible for high level management activities as directed by the Vice President, Nuclear. The Assistant to the Vice President, Nuclear is responsible for Nuclear Records and Information Services (NRIS). The Nuclear Records and Information Services organization includes the Superintendent, NRIS, and the Superintendent, Administration-Records. The Superintendent, NRIS, and the Superintendent, Administration-Records report directly to the Assistant to the Vice President, Nuclear.

1.15 The Manager, Nuclear Safety and Emergency Preparedness (NSEP) reports directly to the General Manager, Engineering (Nuclear) and is responsible for providing a constant independent overview of nuclear Plant safety. He directs the Supervising Engineer, Independent Safety Engineering Group (ISEG) and the Supervisor, Emergency Preparedness (EP).

1.16 The Supervising Engineer, ISEG and staff evaluate Callaway Plant operations from a safety perspective and compare Callaway operating experience with that of plants of similar design. In addition, they assess the conformance of Plant performance to safety requirements. The Supervisor, EP and staff have overall responsibility for the development and maintenance of the Emergency Preparedness Program. This includes onsite and offsite emergency preparedness, coordination of the Plant Radiological Emergency Response Plan with State and local emergency plans, and the planning and execution of emergency drills and emergency plan exercises. A communication path exists between the Manager, NSEP and the Vice President, Nuclear for matters having immediate or significant safety implications, thus providing a direct path to contact management personnel having corporate responsibility for Callaway Plant.

1.17 The Manager, Nuclear Engineering reports directly to the General Manager, Engineering (Nuclear) and directs a staff of superintendents, supervisors, supervising engineers, and quality control inspectors whose primary function is to provide technical support to the operation of Callaway Plant. This support includes, but is not necessarily limited to design; modification; configuration control; system and equipment performance; reliability, and testing; technical programs administration; and contractor support. He controls those activities and implements the OQAP through the Superintendents, Engineering, Design Control, System Engineering, and Project Engineering. Within the System Engineering organization, QC Inspectors (ISI/NDE) report to the Supervising Engineer Performance and ISI, and perform inspection and nondestructive examinations. These inspectors do not perform inspections or examinations which provide quality verification of Nuclear Engineering work activities.

1.18 The Manager, Licensing and Fuels reports directly to the General Manager, Engineering (Nuclear) and has overall responsibility for UE nuclear fuel cycle activities including responsibility for procurement of fuel cycle goods and services, and for incore fuel management. The

Manager, Licensing and Fuels is also responsible for coordinating licensing activities for Callaway Plant. The Licensing and Fuels organization provides technical support activities in the area of reactor design and radiological engineering.

1.19 The Manager, Nuclear Services reports directly to the General Manager, Engineering (Nuclear) and is responsible for providing administrative and management support; for cost forecasting, status reporting, and budgeting matters. He is responsible for direction of the Nuclear Function General Offices clerical activities.

1.20 The Coordinator Nuclear Development reports directly to the General Manager, Engineering (Nuclear) and is responsible for generic nuclear matters. He maintains an awareness of advanced nuclear activities outside UE as well as being the administrative contact with the Institute of Nuclear Power Operations (INPO).

1.21 The Principal Health Physicist reports directly to the General Manager, Engineering (Nuclear) and provides a corporate level overview and guidance in the formulation and implementation of applied radiation protection programs. He reviews the radiological safety programs for compliance with Federal and State standards and regulations.

1.22 The General Manager, Nuclear Operations reports to the Vice President, Nuclear and is responsible for the activities of the Callaway Plant Operations Department and the Operations Support Department. This responsibility includes the safe, legal and efficient operation and maintenance of the Callaway Plant and protecting the health and safety of the public and Plant personnel. He assures a high level of quality is achieved in the Plant operations and support activities.

1.23 The Manager, Callaway Plant reports directly to the General Manager, Nuclear Operations and is responsible for the safe, legal, and efficient operation and maintenance of the Callaway Plant. He controls Plant functions and implements the OQAP through the Assistant Manager, Operations and Maintenance, the Assistant Manager, Technical Services, and the Assistant Manager, Work Control (see Figure B of the OQAM). He has the primary responsibility for reactor operation and safety. Within his organization, the QC Supervisor reports to the Assistant Manager, Work Control who reports to the Manager, Callaway Plant. The Quality Control Group performs work activity inspections, receipt inspection as described in Section 7, and nondestructive examinations and is not involved in those activities

performed by others which are considered "inspections" unto themselves, e.g., surveillance testing, initial startup testing, and I&C, Radiation Protection, and Chemistry group activities. Activities considered to be inspections unto themselves are covered by QA audits and QA surveillances as discussed under Section 18. The QC Supervisor has no duties or responsibilities unrelated to quality control that would prevent his full attention to quality control matters.

1.24 The Manager, Operations Support reports to the General Manager, Nuclear Operations and is responsible for Plant support activities including training, materials management, security, and administration services activities required to support the Callaway Operating License. He controls Plant support activities and implements the OQAP through the Assistant Manager, Materials, the Superintendent, Training, the Superintendent, Security, and the Superintendent, Administration Services.

1.25 The Superintendent, Personnel Development reports directly to the General Manager, Nuclear Operations and is responsible for assisting in areas of labor relations, organizational and personnel development, and other matters under the guidance of UE Company policies.

1.26 The Manager, Purchasing reports directly to the Vice President (or Director), Supply Service who in turn reports to the Executive Vice President. The Manager, Purchasing is responsible for commercial aspects involved in procurement of materials, systems, components, and services (excluding engineering services and certain nuclear fuel cycle-related procurements) not delegated to others which are employed in support of the operating Callaway Plant.

1.27 The Manager, Mechanical Engineering reports to the Vice President (or Director), Engineering and Construction who in turn reports to the Executive Vice President. The Manager, Mechanical Engineering provides technical support, as necessary, to the Nuclear Engineering staff. The Chief Draftsman, who reports to the Manager, Mechanical Engineering provides drawing preparation and revision support, as requested, for design performed by Nuclear Engineering or other UE organizations.

1.28 The Manager, Electrical Engineering reports to the Vice President (or Director), Engineering and Construction. The Manager, Electrical Engineering provides technical support, as requested, to the Nuclear Engineering staff.

1.29 Other UE functions may provide safety-related services which augment and support selected Program activities. These organizations shall be required to implement controls consistent with the OQAP requirements applicable to their scope of activities. The coordination of these activities is the responsibility of the Vice President, Nuclear.

1.30 Safety review committees shall be established to provide an independent review of those items required by the Callaway Plant Technical Specifications. These committees, the Onsite Review Committee (ORC) and the Nuclear Safety Review Board (NSRB), are described in the Administrative Controls Section of the Callaway Plant Technical Specifications.

3.14 Design verification, if other than by qualification testing of a prototype or lead production unit, shall be completed prior to release for procurement, manufacturing, construction or to another organization for use in other design activities. In those cases where this timing cannot be met, the design verification may be deferred, providing the justification for this action is documented and the portions of the design output documents based on the unverified data are appropriately identified and controlled. Without verification, site activities associated with a design or design change must not proceed past the point where the installation would become irreversible (i.e., require extensive demolition and rework). The design verification shall be complete prior to relying upon the component, system, or structure to perform its safety-related function.

3.15 Action shall be initiated to correct errors found in the design process. Errors and deficiencies identified in approved design documents shall be documented and the process of their correction (i.e., review and approval) shall be controlled. These actions shall assure that changes to design or installed components are controlled.

3.16 Requests for design changes affecting safety-related structures, systems, and components may be originated by the unit staff, Licensing and Fuels or Nuclear Engineering. Design changes shall be processed by Nuclear Engineering. Design changes engineered by Nuclear Engineering shall be the responsibility of the Manager, Nuclear Engineering. Design changes engineered by Licensing and Fuels shall be the responsibility of Licensing and Fuels.

3.17 Independent of the responsibilities of the design organization, the requirements of the Onsite Review Committee (ORC) and the Nuclear Safety Review Board (NSRB) as defined in the Technical Specifications shall be satisfied. Design changes require a safety evaluation which shall be reviewed by the ORC and approved by the Manager, Callaway Plant. In addition, changes in the facility as described in the FSAR which involve a change in the Callaway Plant Technical Specifications incorporated in the license or an unreviewed safety question require review and approval by the NSRB and the Nuclear Regulatory Commission prior to implementation. When design is performed by an outside organization, UE shall perform or coordinate a review of the design for operability, maintainability, inspectability, FSAR commitment compatibility, test and inspection acceptance criteria acceptability, and design requirements imposed by Plant generating equipment.

3.18 Safety evaluations which consider the effect of the design as described in the design documents, shall be performed by the responsible UE engineering organization or outside organization(s). These evaluations shall include the basis for the determination that the design change does not involve an unreviewed safety question. As deemed necessary by the evaluating organization, detailed analyses shall be performed to support the bases of safety evaluations. Safety evaluations performed by Nuclear Engineering, Licensing and Fuels, or other Union Electric organizations are submitted to the ORC. Changes involving the substitution of equivalent hardware require safety evaluations to assure that the design requirement changes are consistent with and do not alter the design criteria specified in existing design documents. The engineering approval of design documents and safety evaluations prepared by outside organizations shall be by the outside organization.

3.19 The ORC shall review design change safety evaluations to recommend final approval of design changes. Design changes which involve an unreviewed safety question or a change in the Technical Specifications shall be forwarded to the NSRB for review. An application for amendment of the license shall be submitted to the Nuclear Regulatory Commission for approval pursuant to 10 CFR 50.90.

3.20 The NSRB shall review safety evaluations to verify that changes did not involve unreviewed safety questions.

3.21 Procedures and instructions related to equipment or systems that are modified shall be reviewed and updated to reflect the modification prior to placing the equipment or systems in operation to perform safety-related functions. Plant personnel shall be made aware of changes affecting the performance of their duties through procedure revisions, or specific training in the operation of modified equipment or systems, or other appropriate means.

3.22 Records shall be maintained which reflect current design including safety analyses, safety evaluations, design change installation procedures, material identification documents, procurement documents, special process documents, equipment and installation specifications, and as-built drawings.

4. Requirements for extending applicable requirements of UE procurement documents to lower-tier suppliers and subcontractors. These requirements shall include right-of-access to subsupplier facilities and records by UE.

5. Requirements for suppliers to obtain UE approval of nonconformances to procurement document requirements dispositioned "use-as-is" and "repair" and conditions of their disposition including identification of those subject to UE approval prior to further processing.

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

7. Applicability of 10 CFR 21 reporting requirements.

8. Requirements that the supplier furnish documentation which identifies the purchased item and provides traceability to the procurement requirements met by the item and documentation identifying any procurement requirements which have not been met.

4.4 Safety-related procurements shall be documented. Purchase requisitions must be employed to initiate the procurement of safety-related materials, parts, components, and services while Engineering Service Agreements (ESAs) must be used to contract for safety-related engineering, construction, or consultant services. Contracts, purchase orders generated from purchase requisitions, and ESAs must be employed to procure certain goods and services associated with the nuclear fuel cycle.

4.5 Purchase requisitions for safety-related materials, parts, components, and services and Engineering Service Agreements for professional services may be initiated by personnel in the Quality Assurance Division; Nuclear Engineering, Nuclear Services, or Licensing and Fuels Department; or the unit staff.

4.6 Purchase requisitions, ESAs, letters of intent and contracts for safety-related materials, parts, components, or services shall be reviewed by the internal UE originating organization and the Quality Assurance Division in accordance with written procedures. Collectively, these reviews shall assure that quality requirements are correctly stated, inspectable, and controllable; there are adequate acceptance and rejection criteria; and procurement

documents have been prepared, reviewed, and approved in accordance with QA Program requirements. The originating organization shall perform a documented independent review of procurement documents to assure requirements are correctly stated, inspectable, and controllable and that there are adequate acceptance and rejection criteria. The QA Division shall perform a documented review of procurement documents to assure that the Quality Assurance Program requirements (as defined in Section 3.2.3 of ANSI N45.2.13-1976) are correctly stated and that the procurement documents have been prepared, reviewed, and approved in accordance with QA Program requirements. Approval of the purchase requisition, letter of intent, Engineering Service Agreement, or contract shall be by an individual who has approval authority and signifies that the technical and quality review of the document has been completed.

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

4.8 Each item or service to be procured is evaluated by the procurement document originator to determine whether 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 (part of a safety-related structure, system, component or service) is governed by the OQAP, an engineering evaluation shall be conducted. The evaluation shall be conducted by Nuclear Engineering or Materials Engineering and shall classify the safety relationship of the service or questionable component, parts or items of safety-related structures, systems, and components. Evaluations shall be documented for future reference. Evaluations of this nature shall be reviewed by the Quality Assurance Division to assure that appropriate quality assurance requirements have been satisfied.

4.9 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, contract, or ESA. If employed, letters of intent must specify that no safety-related activities may begin until an approved purchase order, contract, or ESA is executed. However in the event a letter of intent is issued for the purpose of

securing an agreement and thereby allow safety-related work to begin prior to the issuance of such documents, it shall specify the applicable quality and technical requirements. Letters of intent shall be prepared by the Purchasing Department and the originating organization, reviewed by the Quality Assurance Division, and approved and issued by Purchasing. Letters of intent issued prior to the execution of a contract for nuclear fuel cycle-related goods and/or services shall be prepared and issued by the Nuclear Fuel Department and reviewed by the Quality Assurance Division. Letters of intent issued prior to the execution of an ESA shall be prepared and issued by the originating organization and reviewed by the Quality Assurance Division. The QA review shall be to assure that appropriate quality assurance requirements have been imposed.

4.10 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 department approval authority. Commercial consideration changes shall not require review and concurrence by the originator. Conditions specified on the Qualified Suppliers List (QSL) that apply to a vendor may be revised without concurrence from the originating organization since they are imposed without the knowledge of the originator.

4.11 The procurement of spare or replacement parts for safety-related structures, systems, and components shall be subject to the QA Program controls in effect at the time the order is issued and to codes, standards, and technical requirements which are equal to or better than the original requirements or as may be required to reduce the probability for repetition of defects.

4.12 Commercial grade items shall rely on proven design and utilize verification methods, to the extent appropriate to item application, by the purchaser in lieu of supplier controls.

5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS

5.1 The activities affecting quality associated with the operating phase shall be accomplished in accordance with documented instructions, procedures, drawings or checklists which specify the methods for complying with 10 CFR 50, Appendix B and the Technical Specifications. The degree of control imposed shall be consistent with the relative importance of the activity to safety.

5.2 Activities affecting quality shall be controlled by:

1. preparing procedures, instructions, specifications, drawings or checklists of a type appropriate to the activity and its importance to safety;
2. including in these documents quantitative or qualitative acceptance criteria for verifying that an activity has been satisfactorily accomplished;
3. having responsible personnel approve these documents prior to accomplishing an activity; and
4. using approved drawings, procedures, instructions or checklists to accomplish an activity.

5.3 The Nuclear Function and other responsible functions and departments shall provide written procedures and drawings as required to support the Callaway Plant operating phase. These procedures shall prescribe those activities affecting safety-related structures, systems, and components. It is recognized that skills normally possessed by qualified personnel may not require detailed step-by-step delineations in written procedures.

5.4 The Manager, Callaway Plant shall be responsible for providing specific guidance via Administrative Procedures for the development, review and approval of other Plant operating procedures to govern activities which affect safety or quality consistent with the Technical Specifications. Similar guidance shall be provided for revisions and temporary changes to Plant operating procedures. Plant operating procedures shall be reviewed no less frequently than every two years to determine if changes are necessary or desirable. A revision of a procedure constitutes a procedure review.

5.5 The approval, issue and control of implementing procedures, manuals and policy shall be prescribed in Administrative Procedures consistent with the requirements of Sections 2, 5 and 6.

5.6 Administrative Procedures shall be reviewed by the Quality Assurance Division as described in Section 2.6, item 3.

6.0 DOCUMENT CONTROL

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

6.2 Functions, departments, and organizations responsible for OQAP implementing documents shall be required to provide the necessary review and approval for instructions, procedures, specifications, and drawings. Reviews and approvals shall assure that issued documents are adequate, authorized, 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. Specifically, the QA Division shall review Administrative Procedures as described in Section 2.6; QC personnel shall review maintenance and modification procedures*; and QC personnel are responsible for the preparation of inspection procedures and/or checklists to support maintenance and modification activities. Collectively, these reviews by the QA Division and QC personnel determine:

1. The need for inspection, identification of inspection personnel, and documentation of inspection results; and

2. That the necessary inspection requirements, methods, and acceptance criteria have been identified.

6.3 Changes to documents shall be reviewed and approved by the same function, department, group, or organization that performed the original review and approval; however, UE may assume or delegate this responsibility. The reviewing organizations shall have access to pertinent background information upon which to base their approval and shall have adequate understanding of requirements and intent of the original document.

6.4 Documents relating to the UE OQAP shall be controlled to an

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*Work Requests (WRs) and preventive maintenance requests (PMRs) may contain instructions to workers. However, WRs and PMRs are not considered "maintenance procedures" which require QC review. When required, the assignment of inspection points for work authorizing documents is performed by Planning Department personnel based on established criteria.

documentation, or other suitable means; 3) suppliers of commercial grade items able to be ordered solely on the basis of published product descriptions (catalog information); and 4) outside organizations working under the UE OQAP. Regardless of the basis for the acceptability of the procurement source, prior to the issuance of a purchase order or execution of a contract or ESA, a verification of the supplier/outside organization's acceptability shall be documented. Except in unusual circumstances (e.g. replacement parts are needed to preclude the development of some unsafe or undesirable condition), an evaluation of a Supplier's acceptability as a procurement source shall be accomplished prior to award. In the case of purchase orders, the supplier shall be verified as an acceptable procurement source for the item or service being procured. Purchase orders may be issued prior to an assessment of suppliers' capability provided a prohibition on safety-related work is imposed. Such suppliers may be released to begin safety-related work when evaluated to be an acceptable procurement source.

7.4 To support the control of purchased material, copies of purchase orders and other appropriate procurement documents shall be forwarded to the applicable receiving or 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.

7.5 Without any further evaluation, the suppliers to UE or its agents during the design and construction phase may be regarded as qualified procurement sources for replacement parts during the first three years of Callaway's operating phase as the procurement source evaluation measures employed previously have identified these suppliers as qualified procurement sources. Callaway's operating phase began on June 11, 1984 with issuance of the Operating License.

7.6 Procurement source evaluation and selection involves the Quality Assurance Division and the originating organization. The evaluation and selection process shall be specified in Quality Assurance Division procedures and may vary depending on the complexity and relative importance to safety of the item or service. Nuclear Engineering, Licensing and Fuels, Nuclear Services, the unit staff or other organizations may be requested to provide input to the qualification evaluations of suppliers. Suppliers of hardware and services which are manufactured prior to

award, considered a commercial grade item, or implemented under the OQAP do not require pre-award source evaluation audits which attest to a suppliers capability as a procurement source.

7.7 Procurement source evaluations shall consider one or more of the following:

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

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

3. A source evaluation of the supplier's technical and quality capability as determined by a direct evaluation (audit or surveillance) of facilities, personnel and Quality Assurance Program implementation.

7.8 Procurement source evaluations involve a review of technical and quality assurance considerations. Technical considerations include the design or manufacturing capability and technical ability of suppliers to produce or provide the design, service, item, or component. Quality Assurance considerations include one of the previously defined methods of supplier evaluation and a consideration of changes in a supplier's Quality Assurance Program or capabilities. The measures employed to evaluate a supplier's continued acceptability as a procurement source (after the initial source evaluation) are described in Section 18.

7.9 Nuclear Engineering, Quality Assurance, Licensing and Fuels, Nuclear Services, Nuclear Safety and Emergency Preparedness, and the unit staff perform bid evaluations in accordance with documented procedures. These organizations shall initiate and coordinate bid evaluation activities for those proposals received in response to procurement documents initiated by them. Contracts initiated for nuclear

fuel cycle-related goods and/or services shall be the responsibility of the Manager, Licensing and Fuels with preparation and negotiation by the Licensing and Fuels Department. Nuclear fuel cycle-related contracts and Engineering Service Agreements for professional services shall be executed by the Vice President, Nuclear or another company officer in accordance with Nuclear Function and corporate procedures related to agreements or contracts for services.

7.10 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 assurance requirements. Bid evaluations of selected bidders shall be documented and shall be made by individuals or organizations designated to evaluate the following subjects, where appropriate to the type of procurement:

1. Technical considerations
2. Quality assurance requirements
3. Suppliers' personnel qualifications
4. Suppliers' production capability
5. Suppliers' past performance
6. Alternates
7. Exceptions

7.11 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 prior to purchase award.

7.12 Consideration of the verification activities to be employed for item or service acceptance should begin during the purchase requisition, ESA, or contract preparation and review stage. Planning of verification activities 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 post-installation tests established by UE. Selected verification methods may be indicated as inspections, examinations, tests, or documentation reviews. The extent of the acceptance methods and associated verification activities is a function of the purchased item's or service's complexity and relative safety significance, as well as the supplier's past performance. The Quality Assurance Division shall review procurement documents and concur with the originating organization's determination of need for post-award supplier monitoring; i.e., source inspection or surveillance. Procedures provide for the acceptance of commercial grade items based exclusively on receiving inspection with

7.18 Supplier monitoring activities may be performed by personnel from Quality Assurance, Nuclear Engineering, Nuclear Services, Nuclear Safety and Emergency Preparedness, Licensing and Fuels, the unit staff, or outside organizations in accordance with plans to perform inspections, examinations or tests. Supplier monitoring activities may include:

1. Audits of supplier quality assurance program implementation

2. Monitoring, witnessing, or observing inspections, examinations, and performance tests

3. Surveillance of manufacturing processes

4. Audits of supplier records to verify certification validity and the resolution of nonconformances

7.19 Acceptance of items and services shall include one or more of the following:

1. Written certifications
2. Supplier surveillance
3. Source inspection
4. Receiving inspection
5. Post-installation test (in addition to one of the above)

7.20 Where required by code, regulation or contract requirement, documentary evidence that items conform to procurement documents shall be available during receiving inspection or prior to use of such items. Where not precluded by other requirements, documentary evidence may take the form of written certificates of conformance. When certificates of conformance are employed as a means of item acceptance, verification of the validity of supplier certificates and the effectiveness of the certification systems shall be conducted at intervals commensurate with the supplier's past quality performance. Certificates of conformance and compliance shall be required to be signed or accompanied by a signed letter of transmittal. Where acceptance is based upon supplier surveillance, documented evidence of these surveillances shall be furnished to the Plant Quality Control organization by the responsible UE organization or their designated agent prior to acceptance.

7.21 Acceptance by receiving inspection shall be utilized as a prime method of verification and may be utilized as the sole means of item acceptance when items are relatively simple and standard in design and manufacture, such as certain spare parts; when items are adaptable to standard or automated inspections; and when inspections do not require operations which could adversely affect the

9.0 CONTROL OF SPECIAL PROCESSES

9.1 Special processes are 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 require in-process controls in addition to final inspection to assure quality.

9.2 Special processes include such activities as welding, heat treating, nondestructive examination, the application of specialized 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 to which UE is committed. Qualified personnel and approved procedures shall be employed. Procedures for special processes shall be qualified as part of their approval process; personnel qualifications shall be certified; and equipment shall be qualified prior to use. The responsible Plant Department Head shall assure that personnel performing special processes are qualified and are employing approved procedures. Procedures shall also be established for recording evidence of acceptable accomplishment of special processes using qualified procedures, equipment, and personnel. Quality Control personnel shall be responsible for assuring that personnel performing nondestructive examinations are qualified and are employing approved procedures. Nondestructive examination (NDE) personnel shall be qualified in accordance with procedures established to meet the requirements of the Code Edition and Addenda to which UE is committed at the time the NDE is performed. When non-code NDE is performed, personnel shall be qualified to the version of SNT-TC-1A used to meet UE's current commitment to the ASME B&PV Code.

9.3 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 12.

9.4 Qualified outside organizations may be employed to perform special processes onsite and shall be required to conform to the requirements described herein. Special process procedures submitted by these 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.

10.0 INSPECTION

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

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

10.3 Indirect control by monitoring processing methods, equipment, and personnel shall be utilized as a control if inspection of processed items is impossible or disadvantageous. Both inspection and monitoring of processes shall be provided when control is inadequate without both.

10.4 Inspection of activities at the Callaway Plant shall be at intervals based on the status and importance of the activities. Guidelines shall be established to indicate the minimum frequency for inspecting maintenance, modification, and special processes activities to provide a basis for subsequent monitoring planning.

10.5 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 to verify acceptability.

10.6 Required inservice inspection 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 remain within specified limits.

10.7 Quality Control inspection personnel or other unit staff organizations who perform "inspection" activities shall be qualified within their respective areas of responsibility. The qualification of QC inspection personnel shall be defined in three levels of capability as described in ANSI N45.2.6. Other members of the unit staff performing "inspection" activities shall have appropriate experience, training, and retraining to assure competence in accordance with ANSI/ANS-3.1. Inspection assignments

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 Measuring and test equipment utilized in activities affecting quality shall be controlled in accordance with written procedures or instructions. The procedures for calibration and control shall address the identification of test equipment, calibration techniques, calibration frequencies, maintenance control, and storage requirements. The equipment subject to these controls includes: (1) M&TE (portable measuring instruments, test equipment, tools, gages, and non-destructive test equipment used in measuring and inspecting safety-related structures, systems, and components); (2) reference standards (primary, secondary, transfer, and working); and (3) permanently installed process instrumentation (PI).

12.2 M&TE and reference standards shall be tagged or labeled indicating the date of calibration and the due date for recalibration.

12.3 Permanently installed process instrumentation shall be afforded the control measures described herein consistent with the surveillance testing program and preventive maintenance program.

12.4 The calibration and control program established at the Callaway Plant shall assure that M&TE, reference standards, and PI maintain their required accuracy. The Assistant Manager, Operations and Maintenance is responsible for assuring the program establishment. Program implementation is the responsibility of the appropriate Department Heads.

12.5 M&TE, reference standards, and PI shall be utilized by various organizations as required to perform tests or other special operations. Each organization shall be responsible for assuring that the M&TE or reference standards it uses have been calibrated. Outside organizations using M&TE or reference standards at the Callaway Plant in activities affecting quality shall be required to implement calibration and control measures consistent with the applicable requirements of this section. Vendors activities performed offsite, other than calibration services for Callaway Plant M&TE or PI, do not need to meet the requirements of item 8 and 9 or OQAM Section 12.6 unless specified in procurement documents. Vendor-provided calibration services for Callaway Plant M&TE or PI are required to be consistent with the requirements of item 8 and 9 of OQAM Section 12.6. Other UE organizations (e.g. relay testing, battery testing) using M&TE or reference standards at the Callaway Plant in activities affecting quality shall be required to implement a calibration and control program consistent with

15.0 NONCONFORMING MATERIAL, PARTS OR COMPONENTS

15.1 Material nonconformances identified under the UE OQAP shall be controlled to prevent the inadvertent use of material, parts, or components which are defective or of indeterminate quality and to identify documentation inadequacies. Material nonconformances, therefore, include material deficiencies (including inoperative and malfunctioning structures, systems, and components). Measures shall be established regarding identification, documentation, status control, disposition, and notification of affected organizations.

15.2 Material nonconformances shall be reviewed and accepted, rejected, repaired, reworked, or conditionally released in accordance with documented procedures. Repaired and reworked items shall be reinspected or tested. Measures may be established to conditionally release nonconforming items whose disposition is pending, provided that an evaluation indicates that further work or activity will not contribute adversely to the material nonconformance or preclude identification and correction. Material nonconformances shall be controlled, as appropriate, by documentation, tagging, marking, logging, or physical segregation.

15.3 Under the UE OQAP, Nonconforming Material Reports (NMRs), nonconformance logs, or other administrative controls shall be employed to identify and control nonconformances. Nonconformance logs may be employed to control deficiencies of a minor nature or to control documentation deficiencies both of which can be corrected by bringing the deficiency into compliance with the original requirements. The programs describing the administrative nonconformance controls shall delineate the methods of identifying corrective action to be taken for a nonconforming item or series of nonconforming items.

15.4 Material nonconformances shall be processed in accordance with documented procedures and shall identify the specifics of the nonconformance stating the particular drawing, specification or other requirement; shall record the disposition; and shall register the signature of an approval authority. Procedures shall prescribe the individuals or groups assigned the responsibility and authority to approve and verify the implementation of the disposition of material nonconformances. Nuclear Engineering shall be responsible for approving material nonconformance dispositions of "use-as-is" and "repair." Regarding material nonconformances identified onsite, QC personnel shall be responsible for verification that approved dispositions have been implemented and for the final sign-off.

16.0 CORRECTIVE ACTION

16.1 Measures shall be established to assure that conditions adverse to quality are promptly identified, reported, and corrected. Nonconformances shall be controlled in accordance with the requirements described in Section 15.

16.2 Conditions adverse to quality which impede the implementation or reduce the effectiveness of the Operating QA Program shall be controlled by the measures described herein. Adverse conditions may include noncompliance with procedural requirements; reportable occurrences required by regulations; adverse nonconformance trends; or deficiencies identified in the OQAP. Procedures shall provide instructions for identifying, reporting, and initiating corrective action to preclude recurrence of adverse conditions. Within the UE corrective action program, a Request for Corrective Action (RCA) may be employed to document adverse conditions (such as those described above) within or between Nuclear Function Departments. A Corrective Action Report (CAR) shall be employed to document more significant adverse conditions, such as a recurring condition for which past corrective action has been ineffective or a significant breakdown in administrative and managerial control systems which could result in a system designed to prevent or mitigate serious events not being able to perform its intended function. Each of the Nuclear Function Managers is responsible for developing and implementing a program for identifying and controlling adverse conditions. As a minimum each program shall provide for developing and analyzing trends on a semiannual basis. An RCA may not need to be issued when corrective action is being monitored by an alternate, documented program.

16.3 Corrective action documents shall be transmitted to the responsible organization. The responsible organization shall investigate the findings and identify the cause(s) of the deficiency, and specify and initiate the action(s) necessary to correct the conditions and prevent recurrence.

16.4 Nuclear Engineering shall review documented conditions adverse to quality which involve design deficiencies or design changes which are recommended as corrective action. The ORC shall review adverse conditions identified at the Plant on CARs. Licensing and Fuels should review documented conditions adverse to quality for fuel-related issues.

16.5 The corrective action documents shall be closed out by verifying the implementation and adequacy of corrective action. Summaries of corrective action documents shall be reviewed for the effectiveness of the corrective actions taken and analyzed for potential adverse quality trends. These summaries and analyses shall be sent to the Quality

required and are not used, the activities that were accomplished shall be documented after-the-fact and receive the same degree of review as if they had been preplanned."

With regard to Section 5.2.7.1 of ANSI N18.7 - 1976 titled Maintenance Programs: UE shall comply with the requirements of the first sentence of the fifth paragraph, where practical. This clarification is needed since it is not always possible to promptly determine the cause of the malfunction. UE shall initiate proceedings to determine the cause, and shall make such determinations promptly, where practical. QA is involved via both audits and surveillances, and QC is involved in inspection of maintenance inspection activities.

With regard to Section 5.2.8 of ANSI N18.7 - 1976 titled Surveillance Testing and Inspection Schedule: In lieu of a "master surveillance schedule," the following requirement shall be met: "Schedules shall be established reflecting the status of in-plant surveillance tests and scheduled inspections."

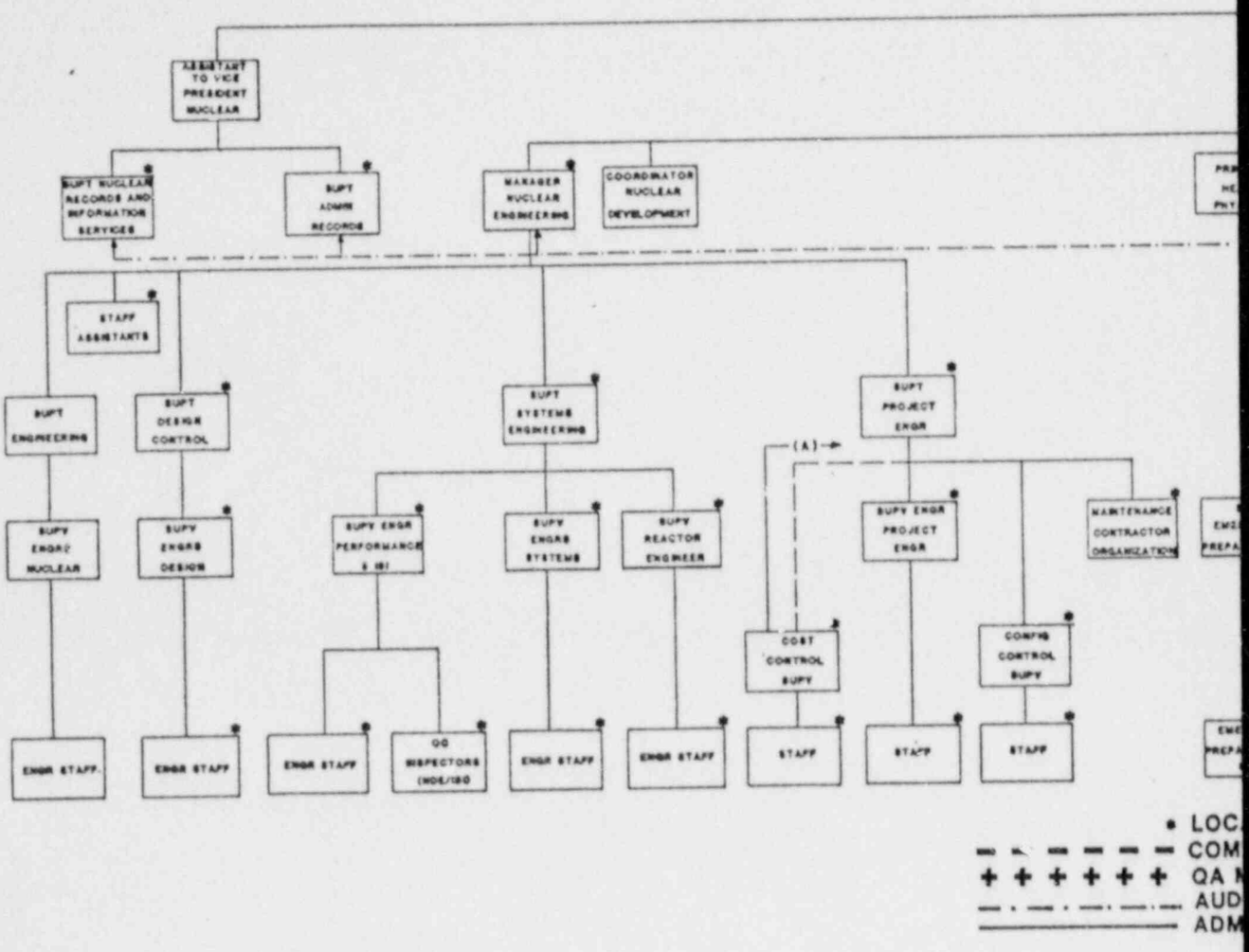
With regard to Section 5.2.9 of ANSI N18.7 - 1976 titled Plant Security and Visitor Control: The requirements of the Security Plan shall be implemented in lieu of these general requirements. When compliance with an NRC accepted program (e.g., Callaway Security Plan) is referenced, UE has substituted the NRC accepted program for applicable regulatory requirements in lieu of the general requirements of the Quality Assurance program standards.

With regard to Section 5.2.10 of ANSI N18.7 - 1976 titled Housekeeping and Cleanliness Control: The requirements of this Section, beginning with the last sentence of the first paragraph and continuing through the end of the Section, shall be implemented as described in UE's commitments to Regulatory Guide 1.39 (ANSI N45.2.3) and Regulatory Guide 1.37 (ANSI N45.2.1) as set forth in this Appendix. In every case either identical or equivalent controls are provided in the Sections of the reference standards or documents.

With regard to Section 5.2.13.1 of ANSI N18.7 - 1976 titled Procurement Document Control: UE shall comply with the following sentence in lieu of the last sentence of the referenced Section.

Where changes are made to the technical or quality requirements on procurement documents, they shall be subject to an equivalent level of review and approval by the originating organization and QA review.

With regard to Section 5.2.17 of ANSI N18.7 - 1976 titled Inspection: Inspections may not require generation of a separate inspection report. Inspection requirements may be integrated into appropriate procedures or other documents with the procedure or document serving as the record. However, records of inspections shall be identifiable and retrievable.


ASSISTANT TO VICE PRESIDENT NUCLEAR
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SUPT ADMIN RECORDS
MANAGER NUCLEAR ENGINEERING
COORDINATOR NUCLEAR DEVELOPMENT
STAFF ASSISTANTS
SUPT ENGINEERING
SUPT DESIGN CONTROL
SUPT SYSTEMS ENGINEERING
SUPT PROJECT ENGR
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SUPV ENGRS NUCLEAR
SUPV ENGRS DESIGN
SUPV ENGR PERFORMANCE & QA
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MAINTENANCE CONTRACTOR ORGANIZATION
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CONFIG CONTROL SUPV
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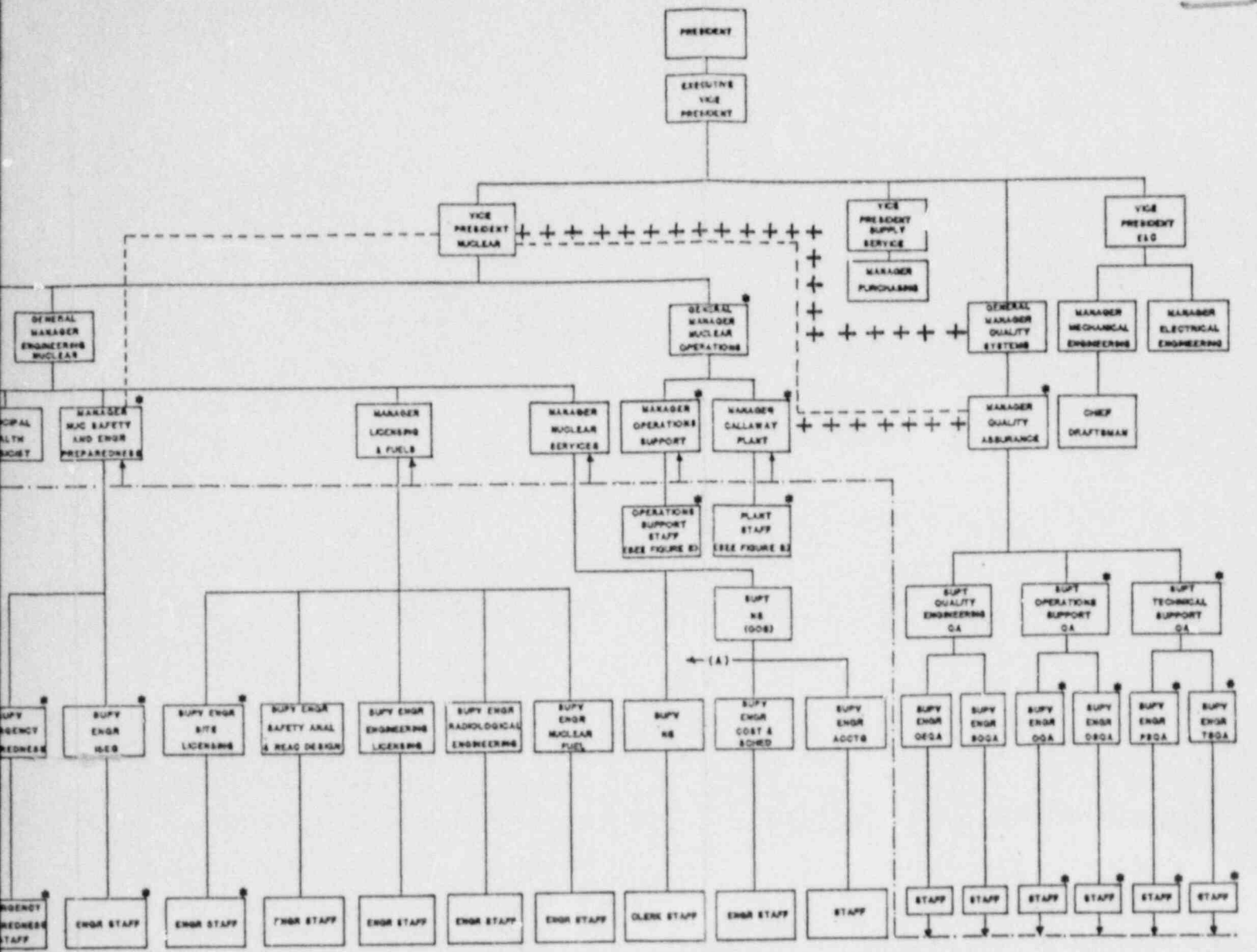

ATED ON SITE
MUNICATION PATH
MATTERS
T
INISTRATIVE PATH

UNION ELECTRIC COMPANY
CALLAWAY PLANT
OQAM
FIGURE A
UNION ELECTRIC ORGANIZATION

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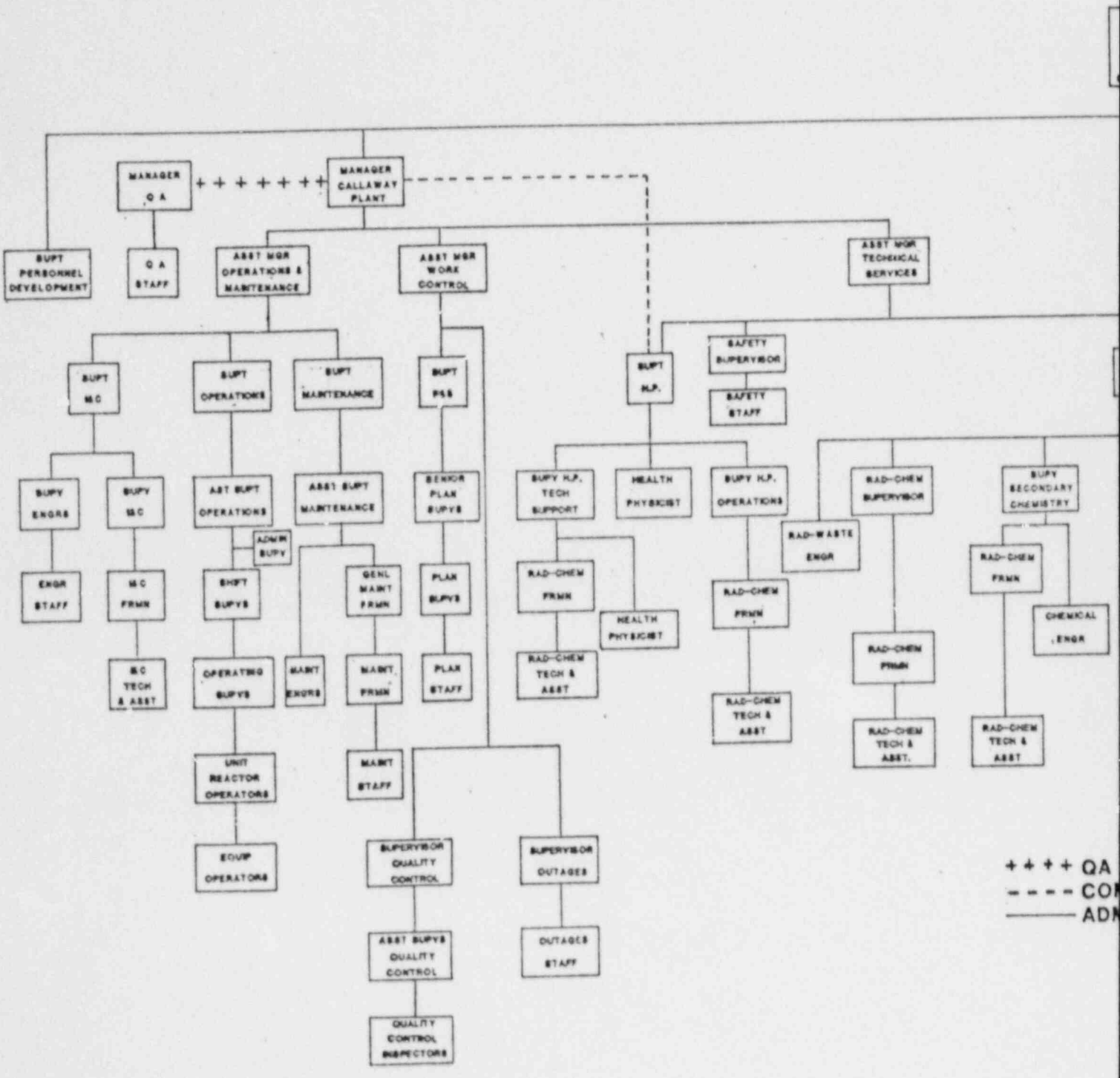
MANAGER QA
MANAGER CALLAWAY PLANT
SUPT PERSONNEL DEVELOPMENT
QA STAFF
ASST MGR OPERATIONS & MAINTENANCE
ASST MGR WORK CONTROL
ASST MGR TECHNICAL SERVICES
SUPT M.C
SUPT OPERATIONS
SUPT MAINTENANCE
SUPT P&S
SUPT H.P.
SAFETY SUPERVISOR
SAFETY STAFF
SUPV ENGRS
SUPV M.C
ENGR STAFF
M.C FRMN
M.C TECH & ASST
ASST SUPT OPERATIONS
ADMIN SUPV
SHIFT SUPVS
OPERATING SUPVS
UNIT REACTOR OPERATORS
EQUIP OPERATORS
ASST SUPT MAINTENANCE
MAINT ENGRS
GENL MAINT FRMN
MAINT FRMN
MAINT STAFF
SENIOR PLAN SUPVS
PLAN SUPVS
PLAN STAFF
SUPERVISOR QUALITY CONTROL
ASST SUPVS QUALITY CONTROL
QUALITY CONTROL INSPECTORS
SUPERVISOR OUTAGES
OUTAGES STAFF
SUPV H.P. TECH SUPPORT
HEALTH PHYSICIST
RAD-CHEM FRMN
HEALTH PHYSICIST
RAD-CHEM TECH & ASST
SUPV H.P. OPERATIONS
RAD-CHEM FRMN
RAD-CHEM TECH & ASST
RAD-WASTE ENGR
RAD-CHEM SUPERVISOR
RAD-CHEM FRMN
RAD-CHEM TECH & ASST.
SUPV SECONDARY CHEMISTRY
RAD-CHEM FRMN
CHEMICAL ENGR
RAD-CHEM TECH & ASST
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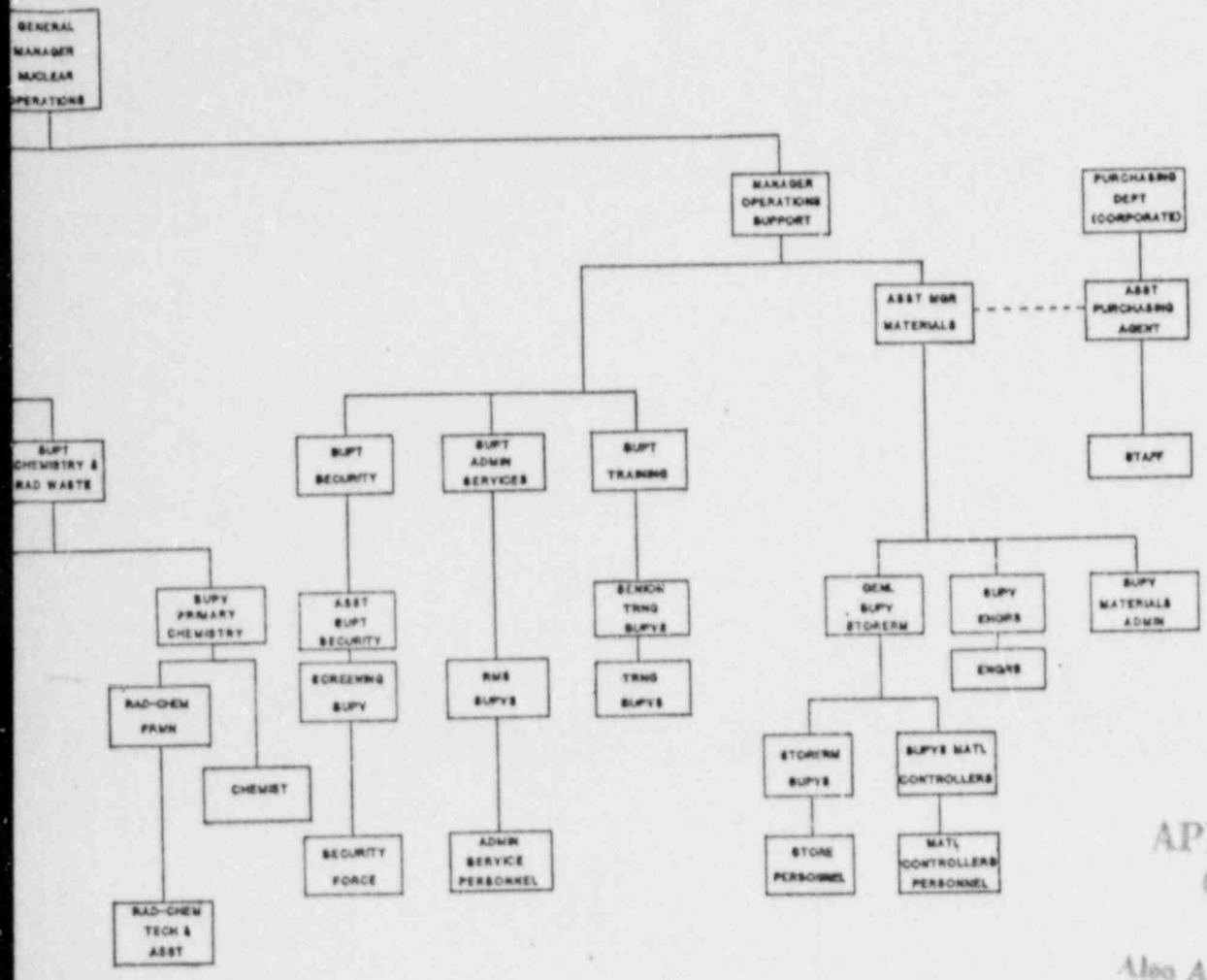

MATTERS
MMUNICATION PATH
MINISTRATIVE PATH

UNION ELECTRIC COMPANY
CALLAWAY PLANT
OQAM
FIGURE B
OPERATING ORGANIZATION

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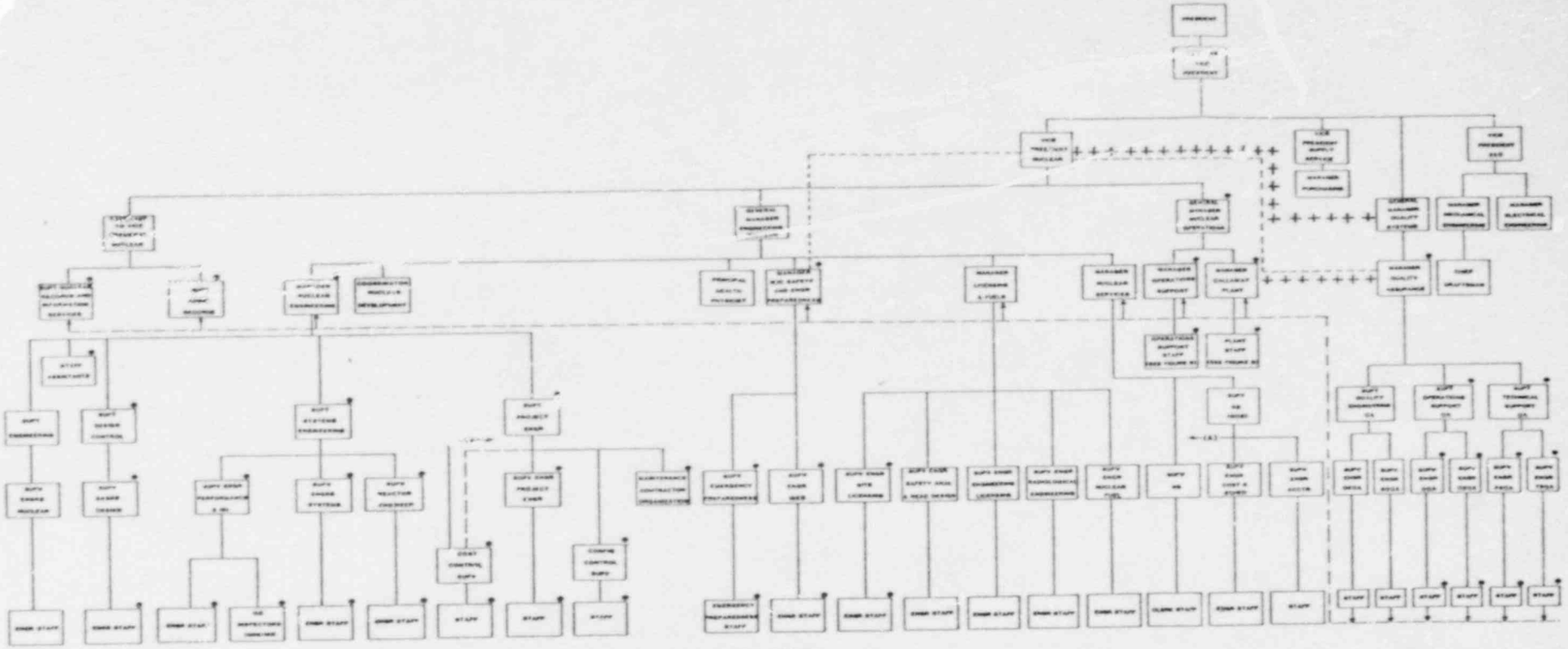

○ LOCATED ON SITE
COMMUNICATION PATH
QA MATTERS
AUDIT
ADMINISTRATIVE PATH

UNION ELECTRIC COMPANY
CALLAWAY PLANT
OQAM
FIGURE A
UNION ELECTRIC ORGANIZATION

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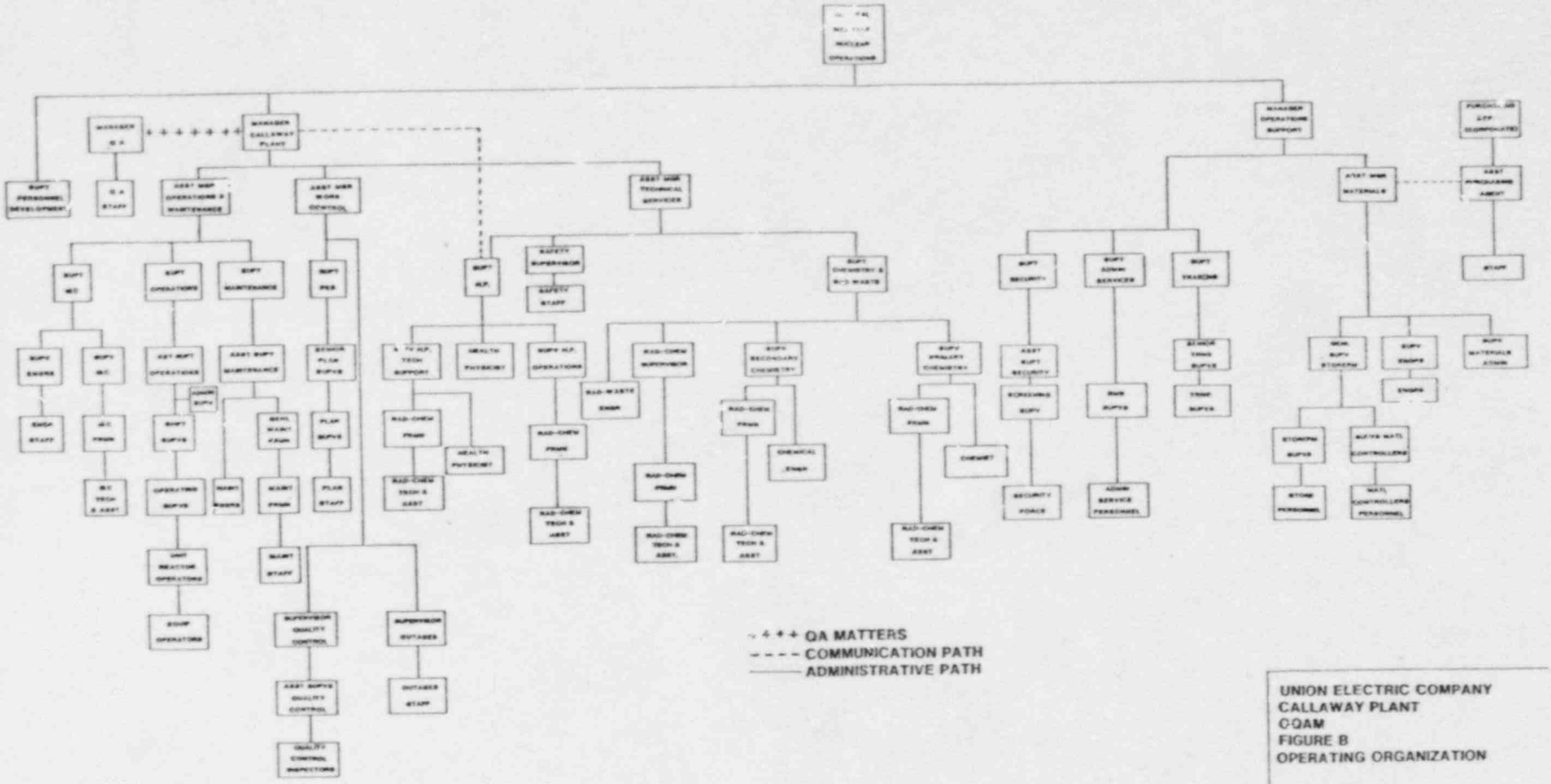

+ + + + + + QA MATTERS
- - - - COMMUNICATION PATH
——— ADMINISTRATIVE PATH

UNION ELECTRIC COMPANY
CALLAWAY PLANT
QQAM
FIGURE B
OPERATING ORGANIZATION

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ATTACHMENT 2

OQAM, REVISION 11

MARK-UP REPORT

OPERATING QUALITY ASSURANCE MANUAL (OQAM)

1.0 ORGANIZATION

1.1 UE has established an organization 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 Operating Quality Assurance Program (OQAP). UE shall retain responsibility for the establishment and execution of the OQAP, although certain Program activities may be delegated to others. The organization responsible for implementing appropriate portions of the OQAP is shown in Figure A of the OQAM. The Callaway Plant operating organization is shown in Figure B of the OQAM.

1.2 The Executive Vice President is responsible to the President of UE Company for the establishment and implementation of the Quality Assurance Program requirements. He has ultimate responsibility for quality assurance, engineering, construction, and operation of the Callaway Plant.

1.3 Under the Executive Vice President, the Vice President, Nuclear is responsible for initiating the Quality Assurance Program, formulating the policy, and authorizing and assuring Program implementation. He is responsible for directing activities within the Nuclear Function which support the engineering, construction, testing, and operation of the Callaway Plant and coordinating support activities performed by others who are not under his direct administrative control. He has corporate responsibility for the operation and physical control of the Callaway Plant.

1.4 The Assistant to the Vice President, Nuclear reports to the Vice President, Nuclear and is responsible for high level management activities as directed by the Vice President, Nuclear. The Assistant to the Vice President, Nuclear is responsible for Nuclear Records and Information Services (NRIS). The Nuclear Records and Information Services organization includes the Superintendent, NRIS, ~~the Superintendent, Administration Services~~ [2] and the Superintendent, Administration-Records. The Superintendent, NRIS, ~~the Superintendent, Administration Services~~ [2] and the Superintendent, Administration-Records report directly to the Assistant to the Vice President, Nuclear.

1.15 The Manager, Nuclear Safety and Emergency Preparedness (NSEP) reports directly to the General Manager, Engineering (Nuclear) and is responsible for providing a constant independent overview of nuclear Plant safety. He directs the Supervising Engineer, Independent Safety Engineering Group (ISEG) and the Supervisor, Emergency Preparedness (EP).

1.16 The Supervising Engineer, ISEG and staff evaluate Callaway Plant operations from a safety perspective and compare Callaway operating experience with that of plants of similar design. In addition, they assess the conformance of Plant performance to safety requirements. The Supervisor, EP and staff have overall responsibility for the development and maintenance of the Emergency Preparedness Program. This includes onsite and offsite emergency preparedness, coordination of the Plant Radiological Emergency Response Plan with State and local emergency plans, and the planning and execution of emergency drills and emergency plan exercises. A communication path exists between the Manager, NSEP and the Vice President, Nuclear for matters having immediate or significant safety implications, thus providing a direct path to contact management personnel having corporate responsibility for Callaway Plant.

1.17 The Manager, Nuclear Engineering reports directly to the General Manager, Engineering (Nuclear) and directs a staff of engineers (as described in Callaway FSAR Section 13.1) whose primary function is to provide offsite technical support of Callaway Plant. [2] The Manager, Nuclear Engineering reports directly to the General Manager, Engineering (Nuclear) and directs a staff of superintendents, supervisors, supervising engineers, and quality control inspectors whose primary function is to provide technical support to the operation of Callaway Plant. This support includes, but is not necessarily limited to design; modification; configuration control; system and equipment performance; reliability, and testing; technical programs administration; and contractor support. He controls those activities and implements the OQAM through the Superintendents, Engineering, Design Control, System Engineering, and Project Engineering. Within the System Engineering organization, QC Inspectors (ISI/NDE) report to the Supervising Engineer Performance and ISI, and perform inspection and nondestructive examinations. These inspectors do not perform inspections or examinations which provide quality verification of Nuclear Engineering work activities. [2]

1.18 The Manager, ~~Nuclear/Fuel~~ Licensing and Fuels [2] reports directly to the General Manager, Engineering (Nuclear) and has overall responsibility for UE nuclear fuel cycle activities including responsibility for procurement of fuel cycle goods and services, and for incore fuel management. The Manager Licensing and Fuels is also responsible for coordinating licensing activities for Callaway Plant. The Licensing and Fuels organization provides technical support activities in the area of reactor design and radiological engineering. [2]

1.19 The Manager, Nuclear Services reports directly to the General Manager, Engineering (Nuclear) and is responsible for providing administrative and management support; for cost forecasting, status reporting, and budgeting matters; ~~and for managing, directing, coordinating, and administering construction and modification work as assigned.~~ [2] He is responsible for direction of the Nuclear Function General Offices clerical activities.

1.20 The Coordinator Nuclear Development reports directly to the General Manager, ~~(Nuclear)~~ Engineering (Nuclear) [2] and is responsible for generic nuclear matters. He maintains an awareness of advanced nuclear activities outside UE as well as being the administrative contact with the Institute of Nuclear Power Operations (INPO).

1.21 The Principal Health Physicist reports directly to the General Manager, Engineering (Nuclear) and provides a corporate level overview and guidance in the formulation and implementation of applied radiation protection programs. He reviews the radiological safety programs for compliance with Federal and State standards and regulations.

~~1/22 The Superintendent, NRIS reports directly to the Assistant to the Vice President, Nuclear and is responsible for the direction of the Nuclear Records and Information Services (NRIS) organization at the Callaway Plant and for Document Control at the General Offices.~~

~~1/23 The Superintendent, Administration-Records is a member of the NRIS and is responsible for the processing of documents and records related to safety, quality assurance, radiation exposure, and training activities of the Plant.~~

~~1/24 The Superintendent, Administration-Services is a member of NRIS and is responsible for site clerical, stenographic and word processing activities to facilitate Plant operation.~~ [2]

1.2~~5~~[2] The General Manager, Nuclear Operations reports to the Vice President, Nuclear and is responsible for the activities of the Callaway Plant Operations Department and the Operations Support Department. This responsibility includes the safe, legal and efficient operation and maintenance of the Callaway Plant and protecting the health and safety of the public and Plant personnel. He assures a high level of quality is achieved in the Plant operations and support activities.

1.2~~6~~[3] The Manager, Callaway Plant reports directly to the General Manager, Nuclear Operations and is responsible for the safe, legal, and efficient operation and maintenance of the Callaway Plant. He controls Plant functions and implements the OQAP through the Assistant Manager, Operations and Maintenance, the Assistant Manager, Technical Services, and the ~~Superintendent, Planning and Scheduling~~ Assistant Manager, Work Control [2] (see Figure B of the OQAM). He has the primary responsibility for reactor operation and safety. ~~Within the Callaway Plant organization,~~ Within his organization, the QC Supervisor reports to the Assistant Manager, Work Control ~~Superintendent, Compliance~~ who reports to the ~~Assistant~~ Manager, Callaway Plant. ~~Support Services.~~ The Quality Control Group performs work activity inspections, receipt inspection as described in Section 7, and nondestructive examinations and is not involved in those activities performed by others which are considered "inspections" unto themselves, e.g., surveillance testing, initial startup testing, and I&C, Radiation Protection, and Chemistry group activities. Activities considered to be inspections unto themselves are covered by QA audits and QA surveillances as discussed under Section 18. The QC Supervisor has no duties or responsibilities unrelated to quality control that would prevent his full attention to quality control matters. [2]

1.2~~7~~[4] The Manager, Operations Support reports to the General Manager, Nuclear Operations and is responsible for Plant support activities including training, materials management, ~~outages,~~ security, ~~quality control,~~ and ~~compliance~~ administration services activities required to support the Callaway Operating License. He controls Plant support activities and implements the OQAP through ~~the Assistant Manager, Support Services,~~ the Assistant Manager, Materials, ~~and~~ the Superintendent, Training, the Superintendent, Security, and the Superintendent, Administration Services. ~~Outages.~~ [2]

5
1.2~~8~~ The Superintendent, Personnel Development reports directly to the General Manager, Nuclear Operations and is responsible for assisting in areas of labor relations, organizational and personnel development, and other matters under the guidance of UE Company policies.

6
1.2~~9~~ The **Manager,** Purchasing ~~Agent~~ [2] reports directly to the Vice President (or Director), Supply Service who in turn reports to the Executive Vice President. The **Manager,** Purchasing ~~Agent~~ [2] is responsible for commercial aspects involved in procurement of materials, systems, components, and services (excluding engineering services and certain nuclear fuel cycle-related procurements) not delegated to others which are employed in support of the operating Callaway Plant.

27
1.~~30~~ The Manager, Mechanical Engineering reports to the Vice President (or Director), Engineering and Construction who in turn reports to the Executive Vice President. The Manager, Mechanical Engineering provides technical support, as necessary, to the Nuclear Engineering staff. The Chief Draftsman, who reports to the Manager, Mechanical Engineering provides drawing preparation and revision support, as requested, for design performed by Nuclear Engineering or other UE organizations.

28
1.~~31~~ The Manager, Electrical Engineering reports to the Vice President (or Director), Engineering and Construction. The Manager, Electrical Engineering provides technical support, as requested, to the Nuclear Engineering staff.

29
1.~~32~~ Other UE functions may provide safety-related services which augment and support selected Program activities. These organizations shall be required to implement controls consistent with the OQAP requirements applicable to their scope of activities. The coordination of these activities is the responsibility of the Vice President, Nuclear.

30
1.~~33~~ Safety review committees shall be established to provide an independent review of those items required by the Callaway Plant Technical Specifications. These committees, the Onsite Review Committee (ORC) and the Nuclear Safety Review Board (NSRB), are described in the Administrative Controls Section of the Callaway Plant Technical Specifications.

3.14 Design verification, if other than by qualification testing of a prototype or lead production unit, shall be completed prior to release for procurement, manufacturing, construction or to another organization for use in other design activities. In those cases where this timing cannot be met, the design verification may be deferred, providing the justification for this action is documented and the portions of the design output documents based on the unverified data are appropriately identified and controlled. Without verification, site activities associated with a design or design change must not proceed past the point where the installation would become irreversible (i.e., require extensive demolition and rework). The design verification shall be complete prior to relying upon the component, system, or structure to perform its safety-related function.

3.15 Action shall be initiated to correct errors found in the design process. Errors and deficiencies identified in approved design documents shall be documented and the process of their correction (i.e., review and approval) shall be controlled. These actions shall assure that changes to design or installed components are controlled.

3.16 Requests for design changes affecting safety-related structures, systems, and components may be originated by the unit staff, ~~Nuclear Fuel~~ Licensing and Fuels [2] or Nuclear Engineering. Design changes shall be processed by Nuclear Engineering. Design changes engineered by ~~the site~~ Nuclear Engineering ~~group~~ [2] shall be the responsibility of the ~~Assistant~~ Manager, Nuclear Engineering. ~~Design change efforts assumed by the General Offices Nuclear Engineering group shall be the responsibility of the Manager, Nuclear Engineering.~~ Design changes engineered by Licensing and Fuels shall be the responsibility of Licensing and Fuels. [2]

3.17 Independent of the responsibilities of the design organization, the requirements of the Onsite Review Committee (ORC) and the Nuclear Safety Review Board (NSRB) as defined in the Technical Specifications shall be satisfied. Design changes require a safety evaluation which shall be reviewed by the ORC and approved by the Manager, Callaway Plant. In addition, changes in the facility as described in the FSAR which involve a change in the Callaway Plant Technical Specifications incorporated in the license or an unreviewed safety question require review and approval by the NSRB and the Nuclear Regulatory Commission prior to implementation. When design is performed by an outside organization, UE shall perform or coordinate a review of the design for operability, maintainability, inspectability, FSAR commitment compatibility, test and inspection acceptance criteria acceptability, and design requirements imposed by Plant generating equipment.

3.18 Safety evaluations which consider the effect of the design as described in the design documents, shall be performed by the responsible UE engineering organization or outside organization(s). These evaluations shall include the basis for the determination that the design change does not involve an unreviewed safety question. As deemed necessary by the evaluating organization, detailed analyses shall be performed to support the bases of safety evaluations. Safety evaluations ~~approved~~ performed by ~~the Manager or Assistant Manager,~~ Nuclear Engineering Licensing and Fuels, or ~~outside~~ other Union Electric [2] organizations are submitted to the ORC. Changes involving the substitution of equivalent hardware require safety evaluations to assure that the design requirement changes are consistent with and do not alter the design criteria specified in existing design documents. The engineering approval of design documents and safety evaluations prepared by outside organizations shall be by the outside organization.

3.19 The ORC shall review design change safety evaluations to recommend final approval of design changes. Design changes which involve an unreviewed safety question or a change in the Technical Specifications shall be forwarded to the NSRB for review. An application for amendment of the license shall be submitted to the Nuclear Regulatory Commission for approval pursuant to 10 CFR 50.90.

3.20 The NSRB shall review safety evaluations to verify that changes did not involve unreviewed safety questions.

3.21 Procedures and instructions related to equipment or systems that are modified shall be reviewed and updated to reflect the modification prior to placing the equipment or systems in operation to perform safety-related functions. Plant personnel shall be made aware of changes affecting the performance of their duties through procedure revisions, or specific training in the operation of modified equipment or systems, or other appropriate means.

3.22 Records shall be maintained which reflect current design including safety analyses, safety evaluations, design change installation procedures, material identification documents, procurement documents, special process documents, equipment and installation specifications, and as-built drawings.

4. Requirements for extending applicable requirements of UE procurement documents to lower-tier suppliers and subcontractors. These requirements shall include right-of-access to subsupplier facilities and records by UE.

5. Requirements for suppliers to obtain UE approval of nonconformances to procurement document requirements dispositioned "use-as-is" and "repair" and conditions of their disposition including identification of those subject to UE approval prior to further processing.

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

7. Applicability of 10 CFR 21 reporting requirements.

8. Requirements that the supplier furnish documentation which identifies the purchased item and provides traceability to the procurement requirements met by the item and documentation identifying any procurement requirements which have not been met.

4.4 Safety-related procurements shall be documented. Purchase requisitions must be employed to initiate the procurement of safety-related materials, parts, components, and services while Engineering Service Agreements (ESAs) must be used to contract for safety-related engineering, construction, or consultant services. Contracts, purchase orders generated from purchase requisitions, and ESAs must be employed to procure certain goods and services associated with the nuclear fuel cycle.

4.5 Purchase requisitions for safety-related materials, parts, components, and services and Engineering Service Agreements for professional services may be initiated by personnel in the Quality Assurance Division; Nuclear Engineering, Nuclear Services, or ~~Nuclear Fuel~~ Licensing and Fuels [2] Department; or the unit staff.

4.6 Purchase requisitions, ESAs, letters of intent and contracts for safety-related materials, parts, components, or services shall be reviewed by the internal UE originating organization and the Quality Assurance Division in accordance with written procedures. Collectively, these reviews shall assure that quality requirements are correctly stated, inspectable, and controllable; there are adequate acceptance and rejection criteria; and procurement

documents have been prepared, reviewed, and approved in accordance with QA Program requirements. The originating organization shall perform a documented independent review of procurement documents to assure requirements are correctly stated, inspectable, and controllable and that there are adequate acceptance and rejection criteria. The QA Division shall perform a documented review of procurement documents to assure that the Quality Assurance Program requirements (as defined in Section 3.2.3 of ANSI N45.2.13-1976) are correctly stated and that ~~they~~ the procurement documents [1] have been prepared, reviewed, and approved in accordance with QA Program requirements. Approval of the purchase requisition, letter of intent, Engineering Service Agreement, or contract shall be by an individual who has approval authority and signifies that the technical and quality review of the document has been completed.

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

4.8 Each item or service to be procured is evaluated by the procurement document originator to determine whether 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 (part of a safety-related structure, system, component or service) is governed by the OQAP, an engineering evaluation shall be conducted. The evaluation shall be conducted by Nuclear Engineering or Materials Engineering and shall classify the safety relationship of the service or questionable component, parts or items of safety-related structures, systems, and components. Evaluations shall be documented for future reference. Evaluations of this nature shall be reviewed by the Quality Assurance Division to assure that appropriate quality assurance requirements have been satisfied.

4.9 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, contract, or ESA. If employed, letters of intent must specify that no safety-related activities may begin until an approved purchase order, contract, or ESA is executed. However in the event a letter of intent is issued for the purpose of

securing an agreement and thereby allow safety-related work to begin prior to the issuance of such documents, it shall specify the applicable quality and technical requirements. Letters of intent shall be prepared by the Purchasing Department and the originating organization, reviewed by the Quality Assurance Division, and approved and issued by Purchasing. Letters of intent issued prior to the execution of a contract for nuclear fuel cycle-related goods and/or services shall be prepared and issued by the Nuclear Fuel Department and reviewed by the Quality Assurance Division. Letters of intent issued prior to the execution of an ESA shall be prepared and issued by the originating organization and reviewed by the Quality Assurance Division. The QA review shall be to assure that appropriate quality assurance requirements have been imposed.

4.10 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 department approval authority. Commercial consideration changes shall not require review and concurrence by the originator. Conditions specified on the Qualified Suppliers List (QSL) that apply to a vendor may be ~~added~~ revised without concurrence from the originating organization since they are imposed without the knowledge of the originator. [1]

4.11 The procurement of spare or replacement parts for safety-related structures, systems, and components shall be subject to the QA Program controls in effect at the time the order is issued and to codes, standards, and technical requirements which are equal to or better than the original requirements or as may be required to reduce the probability for repetition of defects.

4.12 Commercial grade items shall rely on proven design and utilize verification methods, to the extent appropriate to item application, by the purchaser in lieu of supplier controls.

5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS

5.1 The activities affecting quality associated with the operating phase shall be accomplished in accordance with documented instructions, procedures, drawings or checklists which specify the methods for complying with 10 CFR 50, Appendix B and the Technical Specifications. The degree of control imposed shall be consistent with the relative importance of the activity to safety.

5.2 Activities affecting quality shall be controlled by:

1. preparing procedures, instructions, specifications, drawings or checklists of a type appropriate to the activity and its importance to safety;
2. including in these documents quantitative or qualitative acceptance criteria for verifying that an activity has been satisfactorily accomplished;
3. having responsible personnel approve these documents prior to accomplishing an activity; and
4. using approved drawings, procedures, instructions or checklists to accomplish an activity.

5.3 The Nuclear Function and other responsible functions and departments shall provide written procedures and drawings as required to support the Callaway Plant operating phase. These procedures shall prescribe those activities affecting safety-related structures, systems, and components. It is recognized that skills normally possessed by qualified personnel may not require detailed step-by-step delineations in written procedures.

5.4 The ~~General~~ Manager, Callaway Plant [2] ~~Nuclear Operations~~ shall be responsible for providing specific guidance via Administrative Procedures for the development, review and approval of other Plant operating procedures to govern activities which affect safety or quality consistent with the Technical Specifications. Similar guidance shall be provided for revisions and temporary changes to Plant operating procedures. Plant operating procedures shall be reviewed no less frequently than every two years to determine if changes are necessary or desirable. A revision of a procedure constitutes a procedure review.

5.5 The approval, issue and control of implementing procedures, manuals and policy shall be prescribed in Administrative Procedures consistent with the requirements of Sections 2, 5 and 6.

5.6 Administrative Procedures shall be reviewed by the Quality Assurance Divisi. as described in Section 2.6, item 3.

6.0 DOCUMENT CONTROL

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

6.2 Functions, departments, and organizations responsible for OQAP implementing documents shall be required to provide the necessary review and approval for instructions, procedures, specifications, and drawings. Reviews and approvals shall assure that issued documents are adequate, authorized, 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. Specifically, the QA Division shall review Administrative Procedures as described in Section 2.6; ~~the~~ QC ~~group~~ personnel [2] shall review maintenance and modification procedures;* and ~~the~~ QC personnel ~~group~~/~~is~~ are [2] responsible for the preparation of inspection procedures and/or checklists to support maintenance and modification activities. Collectively, these reviews by the QA Division and ~~the~~ QC personnel ~~group~~ [2] determine:

1. The need for inspection, identification of inspection personnel, and documentation of inspection results; and

2. That the necessary inspection requirements, methods, and acceptance criteria have been identified.

6.3 Changes to documents shall be reviewed and approved by the same function, department, group, or organization that performed the original review and approval; however, UE may assume or delegate this responsibility. The reviewing organizations shall have access to pertinent background information upon which to base their approval and shall have adequate understanding of requirements and intent of the original document.

6.4 Documents relating to the UE OQAP shall be controlled to an

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*Work Requests (WRs) and preventive maintenance requests (PMRs) may contain instructions to workers. However, WRs and PMRs are not considered "maintenance procedures" which require QC review. When required, the assignment of inspection points for work authorizing documents is performed by Planning Department personnel based on established criteria.

documentation, or other suitable means; 3) suppliers of commercial grade items able to be ordered solely on the basis of published product descriptions (catalog information); and 4) outside organizations working under the UE OQAP. Regardless of the basis for the acceptability of the procurement source, prior to the issuance of a purchase order or execution of a contract or ESA, a verification of the supplier/outside organization's acceptability shall be documented. Except in unusual circumstances (e.g. replacement parts are needed to preclude the development of some unsafe or undesirable condition), an evaluation of a Supplier's acceptability as a procurement source shall be accomplished prior to award. In the case of purchase orders, the supplier shall be verified as an acceptable procurement source for the item or service being procured. Purchase orders may be issued prior to an assessment of suppliers' capability provided a prohibition on safety-related work is imposed. Such suppliers may be released to begin safety-related work when evaluated to be an acceptable procurement source.

7.4 To support the control of purchased material, copies of purchase orders and other appropriate procurement documents shall be forwarded to the applicable receiving or 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.

7.5 Without any further evaluation,the suppliers to UE or its agents during the design and construction phase may be regarded as qualified procurement sources for replacement parts during the first three years of Callaway's operating phase as the procurement source evaluation measures employed previously have identified these suppliers as qualified procurement sources. Callaway's operating phase began on June 11, 1984 with issuance of the Operating License.

7.6 Procurement source evaluation and selection involves the Quality Assurance Division and the originating organization. The evaluation and selection process shall be specified in Quality Assurance Division procedures and may vary depending on the complexity and relative importance to safety of the item or service. Nuclear Engineering, ~~Nuclear Fuel~~ Licensing and Fuels, [2] Nuclear Services, the unit staff or other organizations may be requested to provide input to the qualification evaluations of suppliers. Suppliers of hardware and services which are manufactured prior to award, considered a commercial grade

item, or implemented under the OQAP do not require pre-award source evaluation audits which attest to a suppliers capability as a procurement source.

7.7 Procurement source evaluations shall consider one or more of the following:

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

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

3. A source evaluation of the supplier's technical and quality capability as determined by a direct evaluation (audit or surveillance) of facilities, personnel and Quality Assurance Program implementation.

7.8 Procurement source evaluations involve a review of technical and quality assurance considerations. Technical considerations include the design or manufacturing capability and technical ability of suppliers to produce or provide the design, service, item, or component. Quality Assurance considerations include one of the previously defined methods of supplier evaluation and a consideration of changes in a supplier's Quality Assurance Program or capabilities. The measures employed to evaluate a supplier's continued acceptability as a procurement source (after the initial source evaluation) are described in Section 18.

7.9 Nuclear Engineering, Quality Assurance, ~~Nuclear Fuel~~ Licensing and Fuels, [2] Nuclear Services, Nuclear Safety and Emergency Preparedness, and the unit staff perform bid evaluations in accordance with documented procedures. These organizations shall initiate and coordinate bid evaluation activities for those proposals received in response to procurement documents initiated by them.

Contracts initiated for nuclear fuel cycle-related goods and/or services shall be the responsibility of the Manager, ~~Nuclear/Fuel~~ Licensing and Fuels [2] with preparation and negotiation by the ~~Nuclear/Fuel~~ Licensing and Fuels [2] Department. Nuclear fuel cycle-related contracts and Engineering Service Agreements for professional services shall be executed by the Vice President, Nuclear or another company officer in accordance with Nuclear Function and corporate procedures related to agreements or contracts for services.

7.10 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 assurance requirements. Bid evaluations of selected bidders shall be documented and shall be made by individuals or organizations designated to evaluate the following subjects, where appropriate to the type of procurement:

1. Technical considerations
2. Quality assurance requirements
3. Suppliers' personnel qualifications
4. Suppliers' production capability
5. Suppliers' past performance
6. Alternates
7. Exceptions

7.11 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 prior to purchase award.

7.12 Consideration of the verification activities to be employed for item or service acceptance should begin during the purchase requisition, ESA, or contract preparation and review stage. Planning of verification activities 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 post-installation tests established by UE. Selected verification methods may be indicated as inspections, examinations, tests, or documentation reviews. The extent of the acceptance methods and associated verification activities is a function of the purchased item's or service's complexity and relative safety significance, as well as the supplier's past performance. The Quality Assurance Division shall review procurement documents and concur with the originating organization's determination of need for post-award supplier monitoring; i.e., source inspection or surveillance. Procedures provide for the acceptance of commercial grade items based exclusively on receiving inspection with

7.18 Supplier monitoring activities may be performed by personnel from Quality Assurance, Nuclear Engineering, Nuclear Services, Nuclear Safety and Emergency Preparedness, ~~Nuclear/Fuel~~ Licensing and Fuels [2], the unit staff, or outside organizations in accordance with plans to perform inspections, examinations or tests. Supplier monitoring activities may include:

1. Audits of supplier quality assurance program implementation

2. Monitoring, witnessing, or observing inspections, examinations, and performance tests

3. Surveillance of manufacturing processes

4. Audits of supplier records to verify certification validity and the resolution of nonconformances

7.19 Acceptance of items and services shall include one or more of the following:

1. Written certifications
2. Supplier surveillance
3. Source inspection
4. Receiving inspection
5. Post-installation test (in addition to one of the above)

7.20 Where required by code, regulation or contract requirement, documentary evidence that items conform to procurement documents shall be available during receiving inspection or prior to use of such items. Where not precluded by other requirements, documentary evidence may take the form of written certificates of conformance. When certificates of conformance are employed as a means of item acceptance, verification of the validity of supplier certificates and the effectiveness of the certification systems shall be conducted at intervals commensurate with the supplier's past quality performance. Certificates of conformance and compliance shall be required to be signed or accompanied by a signed letter of transmittal. Where acceptance is based upon supplier surveillance, documented evidence of these surveillances shall be furnished to the Plant Quality Control organization by the responsible UE organization or their designated agent prior to acceptance.

7.21 Acceptance by receiving inspection shall be utilized as a prime method of verification and may be utilized as the sole means of item acceptance when items are relatively simple and standard in design and manufacture, such as certain spare parts; when items are adaptable to standard or automated inspections; and when inspections do not require operations which could adversely affect the

9.0 CONTROL OF SPECIAL PROCESSES

9.1 Special processes are 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 require in-process controls in addition to final inspection to assure quality.

9.2 Special processes include such activities as welding, heat treating, nondestructive examination, the application of specialized 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 to which UE is committed. Qualified personnel and approved procedures shall be employed. Procedures for special processes shall be qualified as part of their approval process; personnel qualifications shall be certified; and equipment shall be qualified prior to use. The responsible Plant Department Head shall assure that personnel performing special processes are qualified and are employing approved procedures. Procedures shall also be established for recording evidence of acceptable accomplishment of special processes using qualified procedures, equipment, and personnel. ~~The~~ Quality Control ~~organization~~ personnel [2] shall be responsible for assuring that personnel performing nondestructive examinations are qualified and are employing approved procedures. Nondestructive examination (NDE) personnel shall be qualified in accordance with procedures established to meet the requirements of the Code Edition and Addenda to which UE is committed at the time the NDE is performed. When non-code NDE is performed, personnel shall be qualified to the version of SNT-TC-1A used to meet UE's current commitment to the ASME B&PV Code.

9.3 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 12.

9.4 Qualified outside organizations may be employed to perform special processes onsite and shall be required to conform to the requirements described herein. Special process procedures submitted by these 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.

10.0 INSPECTION

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

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

10.3 Indirect control by monitoring processing methods, equipment, and personnel shall be utilized as a control if inspection of processed items is impossible or disadvantageous. Both inspection and monitoring of processes shall be provided when control is inadequate without both.

10.4 Inspection of activities at the Callaway Plant shall be at intervals based on the status and importance of the activities. Guidelines shall be established to indicate the minimum frequency for inspecting maintenance, modification, and special processes activities to provide a basis for subsequent monitoring planning.

10.5 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 to verify acceptability.

10.6 Required inservice inspection 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 remain within specified limits.

10.7 ~~Personnel within the Quality Control group~~ Quality Control inspection personnel [2] or other unit staff organizations who perform "inspection" activities shall be qualified within their respective areas of responsibility. The qualification of QC ~~group~~ [2] inspection personnel shall be defined in three levels of capability as described in ANSI N45.2.6. Other members of the unit staff performing "inspection" activities shall have appropriate experience, training, and retraining to assure competence in accordance with ANSI/ANS-3.1. Inspection assignments

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 Measuring and test equipment utilized in activities affecting quality shall be controlled in accordance with written procedures or instructions. The procedures for calibration and control shall address the identification of test equipment, calibration techniques, calibration frequencies, maintenance control, and storage requirements. The equipment subject to these controls includes: (1) M&TE (portable measuring instruments, test equipment, tools, gages, and non-destructive test equipment used in measuring and inspecting safety-related structures, systems, and components); (2) reference standards (primary, secondary, transfer, and working); and (3) permanently installed process instrumentation (PI).

12.2 M&TE and reference standards shall be tagged or labeled indicating the date of calibration and the due date for recalibration.

12.3 Permanently installed process instrumentation shall be afforded the control measures described herein consistent with the surveillance testing program and preventive maintenance program.

12.4 The calibration and control program established at the Callaway Plant shall assure that M&TE, reference standards, and PI maintain their required accuracy. The Assistant Manager, Operations and Maintenance is responsible for assuring the program establishment. Program implementation is the responsibility of the appropriate Department Heads.

12.5 M&TE, reference standards, and PI shall be utilized by various organizations as required to perform tests or other special operations. Each organization shall be responsible for assuring that the M&TE or reference standards it uses have been calibrated. Outside organizations using M&TE or reference standards at the Callaway Plant in activities affecting quality shall be required to implement calibration and control measures consistent with the applicable requirements of this section. Vendors activities performed offsite, other than

calibration services for Callaway Plant M&TE or PI, do not need to meet the requirements of item 8 and 9 or OQAM Section 12.6 unless specified in procurement documents. Vendor-provided calibration services for Callaway Plant M&TE or PI are required to be consistent with the requirements of item 8 and 9 of OQAM Section 12.6. [3] Other UE organizations (e.g. relay testing, battery testing) using M&TE or reference standards at the Callaway Plant in activities affecting quality shall be required to implement a calibration and control program consistent with

15.0 NONCONFORMING MATERIAL, PARTS OR COMPONENTS

15.1 Material nonconformances identified under the UE OQAP shall be controlled to prevent the inadvertent use of material, parts, or components which are defective or of indeterminate quality and to identify documentation inadequacies. Material nonconformances, therefore, include material deficiencies (including inoperative and malfunctioning structures, systems, and components). Measures shall be established regarding identification, documentation, status control, disposition, and notification of affected organizations.

15.2 Material nonconformances shall be reviewed and accepted, rejected, repaired, reworked, or conditionally released in accordance with documented procedures. Repaired and reworked items shall be reinspected or tested. Measures may be established to conditionally release nonconforming items whose disposition is pending, provided that an evaluation indicates that further work or activity will not contribute adversely to the material nonconformance or preclude identification and correction. Material nonconformances shall be controlled, as appropriate, by documentation, tagging, marking, logging, or physical segregation.

15.3 Under the UE OQAP, Nonconforming Material Reports (NMRs), nonconformance logs, or other administrative controls shall be employed to identify and control nonconformances. Nonconformance logs may be employed to control deficiencies of a minor nature or to control documentation deficiencies both of which can be corrected by bringing the deficiency into compliance with the original requirements. The programs describing the administrative nonconformance controls shall delineate the methods of identifying corrective action to be taken for a nonconforming item or series of nonconforming items.

15.4 Material nonconformances shall be processed in accordance with documented procedures and shall identify the specifics of the nonconformance stating the particular drawing, specification or other requirement; shall record the disposition; and shall register the signature of an approval authority. Procedures shall prescribe the individuals or groups assigned the responsibility and authority to approve and verify the implementation of the disposition of material nonconformances. Nuclear Engineering shall be responsible for approving material nonconformance dispositions of "use-as-is" and "repair." Regarding material nonconformances identified onsite, ~~the~~ QC ~~group~~ personnel [2] shall be responsible for verification that approved dispositions have been implemented and for the final sign-off.

16.0 CORRECTIVE ACTION

16.1 Measures shall be established to assure that conditions adverse to quality are promptly identified, reported, and corrected. Nonconformances shall be controlled in accordance with the requirements described in Section 15.

16.2 Conditions adverse to quality which impede the implementation or reduce the effectiveness of the Operating QA Program shall be controlled by the measures described herein. Adverse conditions may include noncompliance with procedural requirements; reportable occurrences required by regulations; adverse nonconformance trends; or deficiencies identified in the OQAP. Procedures shall provide instructions for identifying, reporting, and initiating corrective action to preclude recurrence of adverse conditions. Within the UE corrective action program, a Request for Corrective Action (RCA) may be employed to document adverse conditions (such as those described above) within or between Nuclear Function Departments. A Corrective Action Report (CAR) shall be employed to document more significant adverse conditions, such as a recurring condition for which past corrective action has been ineffective or a significant breakdown in administrative and managerial control systems which could result in a system designed to prevent or mitigate serious events not being able to perform its intended function. Each of the Nuclear Function Managers is responsible for developing and implementing a program for identifying and controlling adverse conditions. As a minimum each program shall provide for developing and analyzing trends on a semiannual basis. An RCA may not need to be issued when corrective action is being monitored by an alternate, documented program.

16.3 Corrective action documents shall be transmitted to the responsible organization. The responsible organization shall investigate the findings and identify the cause(s) of the deficiency, and specify and initiate the action(s) necessary to correct the conditions and prevent recurrence.

16.4 Nuclear Engineering shall review documented conditions adverse to quality which involve design deficiencies or design changes which are recommended as corrective action. The ORC shall review adverse conditions identified at the Plant on CARs. ~~Nuclear Fuel~~ Licensing and Fuels [2] should review documented conditions adverse to quality for fuel-related issues.

16.5 The corrective action documents shall be closed out by verifying the implementation and adequacy of corrective action. Summaries of corrective action documents shall be reviewed for the effectiveness of the corrective actions taken and analyzed for potential adverse quality trends. These summaries and analyses shall be sent to the Quality

required and are not used, the activities that were accomplished shall be documented after-the-fact and receive the same degree of review as if they had been preplanned."

With regard to Section 5.2.7.1 of ANSI N18.7 - 1976 titled Maintenance Programs: UE shall comply with the requirements of the first sentence of the fifth paragraph, where practical. This clarification is needed since it is not always possible to promptly determine the cause of the malfunction. UE shall initiate proceedings to determine the cause, and shall make such determinations promptly, where practical. QA is involved via both audits and surveillances, and QC is involved in inspection of maintenance inspection activities.

With regard to Section 5.2.8 of ANSI N18.7 - 1976 titled Surveillance Testing and Inspection Schedule: In lieu of a "master surveillance schedule," the following requirement shall be met: "Schedules shall be established reflecting the status of in-plant surveillance tests and scheduled inspections."

With regard to Section 5.2.9 of ANSI N18.7 - 1976 titled Plant Security and Visitor Control: The requirements of the Security Plan shall be implemented in lieu of these general requirements. When compliance with an NRC accepted program (e.g., Callaway Security Plan) is referenced, UE has substituted the NRC accepted program for applicable regulatory requirements in lieu of the general requirements of the Quality Assurance program standards.

With regard to Section 5.2.10 of ANSI N18.7 - 1976 titled Housekeeping and Cleanliness Control: The requirements of this Section, beginning with the last sentence of the first paragraph and continuing through the end of the Section, shall be implemented as described in UE's commitments to Regulatory Guide 1.39 (ANSI N45.2.3) and Regulatory Guide 1.37 (ANSI N45.2.1) as set forth in this Appendix. In every case either identical or equivalent controls are provided in the Sections of the reference standards or documents.

With regard to Section 5.2.13.1 of ANSI N18.7 - 1976 titled Procurement Document Control: UE shall comply with the following sentence in lieu of the last sentence of the referenced Section.

Where changes are made to the technical or quality ~~specifications~~ requirements [1] on procurement documents, they shall be subject to ~~engineering~~ an equivalent level of review and approval by the originating organization [1] and QA review.

With regard to Section 5.2.17 of ANSI N18.7 - 1976 titled Inspection: Inspections may not require generation of a separate inspection report. Inspection requirements may be integrated into appropriate procedures or other documents with the procedure or document serving as the record. However, records of inspections shall be identifiable and retrievable.

ATTACHMENT 3

OQAM, REVISION 11

EXPLANATIONS AND JUSTIFICATIONS

FOR CHANGES

EXPLANATION OF AND JUSTIFICATION FOR PROPOSED CHANGES

TO THE

OPERATING QUALITY ASSURANCE MANUAL (OQAM)

The parenthetical numbers [ ] in this document refer to similar numbers which appear near the proposed changes in Attachment 2. Each number designation is unique, but the statement may apply to many changes within the documents. The affected OQAM sections are referenced following each justification. The statements are designed to provide a brief description of the proposed change and the justification for making the change. Based on Union Electric's evaluation none of the proposed changes represent a reduction in the Operating Quality Assurance Program (OQAP) as it has been previously accepted by the NRC.

[1] Editorial changes (e.g., Renumbering of sections; clarifying references (make wording consistent with ANSI N18.7 and ANSI N45.2.13). None of these changes is considered a reduction in the OQAP. (Effective page listing; Sections 4.6 and 4.10.; App. A, Reg. Guide 1.33)

[2] Organization changes made to improve interdepartment coordination and efficiency. Previously covered by FSAR CN #484. None of these changes is considered a reduction in the OQAP. (Sections 1.4, 1.17, 1.18, 1.19, 1.20, 1.22-1.33, 3.16, 3.18, 4.5, 5.4, 6.2, 7.6, 7.9, 7.18, 9.2, 10.7, 15.4, 16.4, Figure A, Figure B)

[3] Clarification of calibration program requirements for vendors providing calibration services for Callaway's M&TE and PI. (Section 12.5)