

17.0 QUALITY ASSURANCE PROGRAM FOR STATION OPERATION

This chapter contains a description of the Toledo Edison Nuclear Quality Assurance Program which has been established by the Toledo Edison Company to provide assurance that the operation of the Davis-Besse Nuclear Power Station Unit No. 1 conforms with applicable regulatory requirements and with the design bases specified in the license application.

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## 17.1 ACRONYMS, TERMS AND DEFINITIONS

The acronyms, terms and definitions used in Section 17.2 of this Chapter are as follows:

- a. AFR - Audit Finding Report
- b. Agent - An Authorized Representative of Toledo Edison for support services.
- c. ALARA - As Low As Reasonably Achievable Radiation Exposures
- d. ANI - Authorized Nuclear Inspector or Authorized Inspector as applicable to a Component's Code Section.
- e. ANII - Authorized Nuclear Inservice Inspector
- f. ANSI - American National Standards Institute
- g. Approve - Agree to. Approval requires a signature or initials and date.
- h. ASME - The American Society of Mechanical Engineers
- i. Audit- A documented activity performed in accordance with written procedures or checklists to verify, by examination and evaluation of objective evidence, that applicable elements of the Quality Assurance Program have been developed, documented and effectively implemented in accordance with specified requirements.
- j. CAR - Corrective Action Request
- k. Code - The American Society of Mechanical Engineers Boiler and Pressure Vessel Code.
- l. Commitment - As used in the context of 10CFR50.54, commitments are those ANSI Standard and NRC Regulatory Guide requirements to which Toledo Edison has indicated to the NRC that the Toledo Edison Nuclear Quality Assurance Program will be in compliance with.
- m. Delegate - The act of authorizing an individual, in writing, to perform functions within a specific area of responsibility.
- n. Design Documents - Toledo Edison or agent-generated documents that describe and specify the structure, system, component, or service.
- o. Disposition - A decision by an authorized individual(s) that a nonconforming item falls into one of the following disposition categories:
  - a. Reject
  - b. Use-As-Is
  - c. Repair
  - d. Rework

- p. Division - An organization having specific goals and objectives in support of the corporation. A Division Director reports to a Mission Vice President.
- q. Documentation - Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results.
- r. DVR - Deviation Report
- s. FCN- Field Change Notice
- t. FCR - Facility Change Request
- u. FSAR - Final Safety Analysis Report
- v. GMIC - General Material Inspection Checklist
- w. Hold Point - A step in a procedure which requires witnessing or inspection by the requesting individual and beyond which work shall not proceed without the written consent of the requesting individual.
- x. Instructions - A series of logical, well-defined steps, usually written descriptions for providing an efficient and uniform method for achieving an objective.
- y. LER - Licensee Event Report
- z. Measuring and Test Equipment - Equipment, whether permanently installed or portable, used to calibrate permanent plant devices.
- aa. MIT - Material Issue Ticket
- bb. MWO - Maintenance Work Order
- cc. NBIC - National Board Inspection Code
- dd. NCR - Nonconformance Report
- ee. NDE - Nondestructive Examination
- ff. NQAM - Nuclear Quality Assurance Manual
- gg. NRC - Nuclear Regulatory Commission
- hh. NSR - Nuclear Safety Related
- ii. Nuclear Safety Related - Those facility features necessary to ensure the integrity of the reactor coolant pressure boundary, the capability to shut down the reactor and maintain it in a safe condition, or the capability to prevent or mitigate the consequences of accidents which could result in off-site exposure comparable to the guidelines of the NRC Regulations 10CFR100.



- jj. Nuclear Safety-Related Activities - An activity affecting those Station features necessary to insure the integrity of the reactor coolant pressure boundary, the capability to shut down the reactor and maintain it in a safe shutdown condition, or the capability to prevent or mitigate the consequences of accidents which could result in off-site exposure comparable to the guidelines of NRC Regulations 10CFR100.
- ll. NSSS - Nuclear Steam Supply System
- mm. Post-Modification Test - Those nuclear safety-related tests that demonstrate the capability of structures, systems, and components to meet the nuclear safety-related requirements or confirm the design bases.
- nn. Procedure - See definition of Instructions.
- oo. Procurement Documents - Contractually binding documents that define the requirements to which purchase items or services must conform.
- pp. PQR - Procedure Qualification Record
- qq. QA - Quality Assurance
- rr. Quality Assurance - A formal program providing planned surveillance and the documentation system necessary to provide Toledo Edison with assurance that steps associated with design, procurement, construction, preoperational testing, startup, and operation of critical items or systems have been carried out to meet requirements of the Toledo Edison Nuclear Quality Assurance Program. Quality Assurance also comprises those planned and systematic actions necessary to provide adequate confidence that all items repaired, altered, modified, or replaced are in accordance with the requirements of Section XI of the ASME Boiler and Pressure Vessel Code or the National Board Inspection Code, as applicable.
- ss. QC - Quality Control
- tt. Quality Control - The management and documentation of examinations which control and measure the characteristics of an item, process, or facility to established requirements.
- uu. QE - Quality Engineering
- vv. Q-List - A master controlling document of those nuclear safety-related items that serve to prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public.
- ww. Regulatory Requirements - As used in the audit process, regulatory requirements are defined as those plans which receive NRC approval (e.g., Emergency Plan, Security Plan, Fire Hazard Analysis Report, Inservice Inspection Program, etc.) and those NRC Regulatory Guides and ANSI Standards listed in Table 17.2-1.

- xx. Reject - A nonconformance disposition when it is determined that the nonconforming item cannot be used. Rejection implies either return to the supplier/contractor or scrap.
- yy. Repair - A nonconformance disposition when the nonconforming characteristic may be restored to a condition such that the capability of the item to function reliably and safely is unimpaired, even though the item still may not conform to the original requirement.
- zz. Rework - A nonconformance disposition when the item is made to conform to a prior specified requirement by completion, remachining, reassembly, or other corrective action.
- aaa. Sample - A representative part or a single item from a larger whole or group presented for inspection or shown as evidence of quality.
- bbb. SDR - Supplier Deviation Report
- ccc. Services - The performance by a supplier/contractor of activities such as design, fabrication, inspection, nondestructive examination, reports, or installation.
- ddd. Special Process - A process which requires interim in-process controls in addition to final inspection to assure quality.
- eee. Supplier/Contractor - Any organization under contract for furnishing items or services to an organization operating in compliance with Quality Assurance requirements. This includes the terms, "Vendor, Suppliers, Subcontractor, or Fabricator". An agent may be considered a contractor of services.
- fff. Survey - A documented evaluation of an organization's ability to perform Code or Nuclear Safety-Related activities as verified by a determination of the adequacy of the organization's quality program and by a review of the implementation of that program at the location of the work.
- ggg. SWN - Stop Work Notice
- hhh. Use As Is - A nonconformance disposition when it is determined that the nonconformance will result in no adverse conditions and that the nonconforming items will continue to meet all engineering functional requirements including performance, maintainability, fit and safety.
- iii. Use As Is Temporarily - A nonconformance disposition when it can be established that the discrepancy will result in no adverse conditions, that the item under consideration will continue to meet its intended safety function, and that it is desirable for other reasons to repair or rework the item at a later date.
- jjj. Witness Point - A step in a procedure which the requesting individual desires to witness or inspect. If the requesting individual has been notified and is not present, the step may proceed in accordance with the procedure.

kkk. WPS - Welding Procedure Specification

lll. 10CFR21 - Title 10, Code of Federal Regulations, Part 21

mmm. 10CFR50 - Title 10, Code of Federal Regulations, Part 50

NOTE: Additional Terms and Definitions are found in ANSI N45.2.10.

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## 17.2 QUALITY ASSURANCE PROGRAM

### 17.2.1 Organization

#### 17.2.1.0 Purpose

This section describes the Toledo Edison organization and identifies responsibilities for those organizations participating in the Nuclear Quality Assurance Program. Figure 17-1 (Form ED 6906-5) illustrates the Toledo Edison organizational structure. Toledo Edison may delegate to other organizations responsibility for implementing portions of this QA Program. When this occurs, the provisions of Section 17.2.4.0 of this manual shall apply to ensure the selected organization is qualified to perform the delegated work. Although delegated, the overall responsibility for this work is maintained by Toledo Edison and is monitored through the inspection and audit provisions contained in this manual.

#### 17.2.1.1 Responsibilities

The key organizational elements responsible for the principle functions of the Toledo Edison Nuclear Quality Assurance Program are as follows:

##### 17.2.1.1.1 President

The Toledo Edison President serves as the Chief Operating Officer of the Company and is responsible for the activities involving engineering, design, procurement, construction, operation, and quality assurance for the Davis-Besse Nuclear Power Station.

##### 17.2.1.1.2 Vice President, Nuclear

The Toledo Edison Vice President, Nuclear reports to the Toledo Edison President and has been designated as the responsible corporate officer for all QA matters relating to the engineering, design, construction, and operation of the Davis-Besse Nuclear Power Station. The Toledo Edison Vice President, Nuclear has delegated the authority for developing and implementing the QA Program to the Toledo Edison Quality Assurance Director. The Toledo Edison Vice President, Nuclear reserves the authority to conduct or order the monitoring of any activity at any time to determine the effectiveness of the QA policies and requirements set forth in the Toledo Edison Nuclear Quality Assurance Manual, and to determine compliance with the provisions of the QA Manual. The Toledo Edison Vice President, Nuclear is responsible for conducting a review of the QA Program on an annual basis and for maintaining formal communication with the NRC on quality related matters.

##### 17.2.1.1.3 Vice President, Administrative Services

The Toledo Edison Vice President, Administrative Services reports to the Toledo Edison President and is responsible for security, records management, and procurement activities for the Davis-Besse Nuclear Power Station.

##### 17.2.1.1.4 Quality Assurance Director

The Toledo Edison Quality Assurance Director has the responsibility to establish, execute, and audit the QA Program. The Toledo Edison Quality Assurance

Director reports directly to the Toledo Edison Vice President, Nuclear and is responsible for ensuring the implementation of the QA Program and for advising the Toledo Edison Vice President, Nuclear of the QA Program's effectiveness. The Toledo Edison Quality Assurance Director is free from non-QA related duties and responsibilities, including independence from influences of cost and schedule. The Toledo Edison Quality Assurance Director has been given authority by the Toledo Edison President to: identify quality problems; initiate, recommend, or provide solutions through designated channels; verify implementation of solutions; and verify conformance to established quality requirements. The Toledo Edison Quality Assurance Director has been given the authority by the Toledo Edison President to stop work on nonconforming activities, and stop further processing, delivery, or installation of material not in conformance with specified requirements and/or the provisions of the Toledo Edison Quality Assurance Manual. He is responsible for technical supervision and administrative control over the QA organization, including selection, hiring/firing and salary review of personnel assigned to positions within the QA organization. His normal work location is at the Davis-Besse site.

#### 17.2.1.1.5 Operations QA Supervisor

The Toledo Edison Operations QA Supervisor reports directly to the Toledo Quality Assurance Director and is responsible for assuring that the provisions of the Toledo Edison Nuclear Quality Assurance Manual are properly implemented by Toledo Edison organizations and site contractors. The Toledo Edison Operations QA Supervisor is located at the Davis-Besse site and is the Toledo Edison Quality Assurance Director's designee to take appropriate corrective action, including stopping work, on unsatisfactory material or work activities. Specific duties of the Operations QA Supervisor include, but are not limited to, the following:

- 17.2.1.1.5.1 Supervise Operations Quality Assurance activities.
- 17.2.1.1.5.2 Review applicable Toledo Edison and site contractor specifications, manuals, procedures, instructions, and quality documents for conformance and/or compliance with established quality assurance program requirements.
- 17.2.1.1.5.3 Assign and/or perform audits and surveillance of Toledo Edison organizations and site contractors performing nuclear safety related or Code activities for compliance with established quality assurance program requirements.
- 17.2.1.1.5.4 Establish a training and qualification program for Operations Quality Assurance personnel.
- 17.2.1.1.5.5 Coordinate the preparation and/or review of the Toledo Edison Nuclear Quality Assurance Manual, related documents and revisions thereto.

#### 17.2.1.1.6 Quality Engineering Supervisor

The Toledo Edison Quality Engineering Supervisor reports directly to the Toledo Edison Quality Assurance Director and is responsible for assuring that the provisions of the Toledo Edison Nuclear Quality Assurance Manual are properly



implemented by Toledo Edison's agents and off-site suppliers/contractors. The Toledo Edison Quality Engineering Supervisor is located at the Davis-Besse site and is the Toledo Edison Quality Assurance Director's designee to take appropriate corrective action, including stopping work, on unsatisfactory material or work activities. Specific duties of the Quality Engineering Supervisor include, but are not limited to, the following:

- 17.2.1.1.6.1 Supervise Quality Engineering activities.
- 17.2.1.1.6.2 Review applicable Toledo Edison, agent, and off-site supplier/contractor specifications, procurement documents, manuals, procedures, instructions, and quality documents for conformance and/or compliance with established quality assurance program requirements.
- 17.2.1.1.6.3 Assign and/or perform audits and surveillance of agents and off-site suppliers/contractors performing nuclear safety related or code activities for compliance with established quality assurance program requirements.
- 17.2.1.1.6.4 Perform and/or coordinate receipt inspection and source verification of suppliers/contractors furnishing nuclear safety related or code materials, parts and components.
- 17.2.1.1.6.5 Establish a training and qualification program for Quality Engineering personnel.

#### 17.2.1.1.7 Quality Control Supervisor

The Toledo Edison Quality Control Supervisor reports directly to the Toledo Edison Quality Assurance Director and is responsible for inspection of Code and nuclear safety related activities performed by Toledo Edison and site contractors working directly under the Toledo Edison Nuclear Quality Assurance Program. The QC Supervisor performs inspections and surveillances to verify conformance to established quality requirements during the day-to-day activities of Toledo Edison and site contractors. The Toledo Edison QC Supervisor is located at the Davis-Besse site and is the Toledo Edison Quality Assurance Director's designee to take appropriate action, including stopping work on unsatisfactory material or work activities. Specific duties of the Quality Control Supervisor include, but are not limited to, the following:

- 17.2.1.1.7.1 Supervise Quality Control activities.
- 17.2.1.1.7.2 Review documents affecting nuclear safety related or Code structures, systems, or components to identify inspection requirements.
- 17.2.1.1.7.3 Initiate nonconformance reports and conduct follow-up on resolutions and corrective action.
- 17.2.1.1.7.4 Perform nondestructive examination and acceptance inspections for modifications, maintenance and repair activities by Toledo Edison and site contractors.



17.2.1.1.7.5 Establish a training and qualification program for Quality Control personnel.

17.2.1.1.7.6 Perform surveillance of post-modification and Station Surveillance/Periodic Tests.

#### 17.2.1.1.8 Code Inspection Supervisor

The Toledo Edison Code Inspection Supervisor reports directly to the Toledo Edison Quality Assurance Director and is responsible for the inspection of Code and nuclear safety related activities performed by Toledo Edison and site contractors to ensure compliance with applicable codes. The Toledo Edison Code Inspection Supervisor is located at the Davis-Besse site and is the Toledo Edison Quality Assurance Director's designee to take appropriate corrective action, including stopping work on unsatisfactory material or work activities. Specific duties of the Code Inspection Supervisor include, but are not limited to, the following:

17.2.1.1.8.1 Supervise Toledo Edison Code Inspection activities.

17.2.1.1.8.2 Perform inspections of components, parts, and/or piping subassemblies for compliance with applicable ASME, ANSI, NFPA, state, and federal requirements.

17.2.1.1.8.3 Aid in preparation of required documents for inspections.

17.2.1.1.8.4 Monitor application of stamping of components, parts, and piping as required by proper authority.

17.2.1.1.8.5 Coordinate the implementation of the Inservice Inspection program for welds and components.

17.2.1.1.8.6 Qualify welders and welding procedures.

17.2.1.1.8.7 Coordinate the activities of the Authorized Inspection Agency to insure Code compliance.

17.2.1.1.8.8 Establish a training and qualification program for Code Inspection personnel.

#### 17.2.1.1.9 Davis-Besse Station Superintendent

The Davis-Besse Station Superintendent reports directly to the Toledo Edison Vice President, Nuclear. He is responsible for administering and directing all operation, maintenance, and facility modification activities in connection with the continuous efficient operation of the Davis-Besse Nuclear Power Station. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.9.1 Assistant Station Superintendent (Operations)

The Assistant Station Superintendent (Operations) reports directly to the Davis-Besse Station Superintendent and assists the Station Superintendent in overall management of the Station. He administers and coordinates

operations, technical, maintenance, and chemistry and health physics activities to ensure conformance and compliance with federal and state regulations and license requirements in connection with the continuous and efficient day-to-day operation of the Davis-Besse Nuclear Power Station. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.2 Assistant Station Superintendent (Outage Management)

The Assistant Station Superintendent (Outage Management) reports directly to the Davis-Besse Station Superintendent and assists the Station Superintendent in overall management of the Davis-Besse Nuclear Power Station. He is responsible for coordinating and directing facility modification activities. He is also responsible for planning and coordinating the activities of Toledo Edison and contract personnel during maintenance and refueling outages to ensure timeliness, cost effectiveness, and quality of all outage activities. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.3 Office Manager

He supervises and coordinates the clerical activities and clerical personnel at the Davis-Besse Nuclear Power Station. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.4 Technical Engineer

The Technical Engineer reports directly to the Assistant Station Superintendent. He assists in directing and managing activities of the station with special emphasis on nuclear safety and technical support activities such as In-Core and Out-of-Core Fuel Management and Reports Management. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.5 Operations Engineer

He directs and coordinates the operations activities of the Davis-Besse Nuclear Power Station including the operation of nuclear generating equipment. This includes the nuclear reactor, reactor support systems, secondary plant systems and pumps, electrical breaker connections, the main turbine generator, and associated auxiliary equipment. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.6 Maintenance Engineer

The Maintenance Engineer reports directly to the Assistant Station Superintendent. He directs and coordinates preventive maintenance and routine repairs/modifications of instrument and control, mechanical, and electrical equipment of the Davis-Besse Nuclear Power Station. He is also responsible for planning and coordinating major modifications with the Facility Modification Department and other departments as required. He is respon-

sible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.7 Chemist and Health Physicist

The Chemist and Health Physicist reports directly to the Assistant Station Superintendent. He administers and maintains the Health Physics Program to ensure implementation and compliance with radiological control procedures for personnel radiation safety. He also plans and directs the Chemistry, Radio-Chemistry, and Environmental Monitoring Programs. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.9.8 Facility Modification Manager

The Toledo Edison Facility Modification Manager reports directly to the Assistant Station Superintendent (Outage Management). He directs or coordinates activities involving major modifications for the Davis-Besse Nuclear Power Station. In addition, he is responsible for the review, monitoring, and evaluation of construction methods and procedures, and the physical status of construction work. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.10 Nuclear Facility Engineering Director

The Toledo Edison Facility Nuclear Engineering Director reports directly to the Toledo Edison Vice President, Nuclear and is responsible for the detailed development, direction, and overall coordination of engineering activities for the Davis-Besse Nuclear Power Station. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.10.1 Facility Engineering General Supervisor

The Toledo Edison Facility Engineering General Supervisor reports directly to the Toledo Edison Nuclear Facility Engineering Director. He supports nuclear operations, maintenance, and facility modifications with an onsite engineering capability, manages design engineering functions, directs engineering and design activity of the architect-engineer and other consultants, and controls all facility design changes. He is further responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.10.2 Engineering Services Manager

The Toledo Edison Engineering Services Manager reports directly to the Toledo Edison Nuclear Facility Engineering Director. He is responsible for providing administrative support, including design document control, to the Nuclear Engineering Division. He is also responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.10.3 Systems Engineers

System Engineers report directly to the Toledo Edison Nuclear Facility Engineering Director. They provide technical direction, expertise, and supervision for the design of the various systems, including the resolution of problems related thereto, required to operate and maintain the Davis Besse Nuclear Power Station. They are responsible for ensuring that their activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.11 Nuclear Services Director

The Toledo Edison Nuclear Services Director reports directly to the Toledo Edison Vice President, Nuclear. He administers and directs nuclear fuel management activities including procurement of fuel and fuel-related service such as fuel enrichment and fabrication, reprocessing, storage and disposal. He also provides support to the Davis-Besse Nuclear Power Station in areas of licensing, emergency preparedness, training, and reliability engineering. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.11.1 Nuclear Training Manager

The Nuclear Training Manager reports directly to the Toledo Edison Nuclear Services Director. He manages the Toledo Edison Nuclear Training Program including establishing training programs, courses, supervising course presentation, and evaluating training effectiveness. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.11.2 Nuclear Reliability Manager

The Nuclear Reliability Manager reports directly to the Toledo Edison Nuclear Services Director. He provides reliability engineering services for the Davis-Besse Nuclear Power Station and recommends improvements in Station procedures and hardware which will improve the unit availability and reduce outage time. He has no direct responsibility in the implementation of the Toledo Edison Nuclear Quality Assurance Program.

##### 17.2.1.1.11.3 Nuclear Licensing Manager

The Nuclear Licensing Manager reports directly to the Toledo Edison Nuclear Services Director. He supervises and performs functions related to the licensing activities involved in the engineering, design, and Station to provide timely and effective response to NRC and Toledo Edison management concerns. He is also responsible for supervising and directing the Emergency Preparedness Program. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.11.4 Nuclear Fuel Manager

The Nuclear Fuel Manager reports directly to the Toledo Edison Nuclear Services Director. He directs and coordinates the procurement and contract-



ing of nuclear fuel and related services and performs analysis of nuclear fuel performance. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.12 Nuclear Projects Director

The Nuclear Projects Director reports directly to the Toledo Edison Vice President, Nuclear. He provides overall priorities and ensures the allocation of resources to support major projects for the Davis-Besse Nuclear Power Station. He has no direct responsibility in the implementation of the Toledo Edison Nuclear Quality Assurance Program.

#### 17.2.1.1.13 Nuclear Safety Director

The Nuclear Safety Director reports directly to the Toledo Edison Vice President, Nuclear. He is responsible for the independent review and evaluation of selected activities regarding the Toledo Edison nuclear program. He establishes guidelines and directs safety reviews of selected engineering, operations, and maintenance activities with the general goal of minimal nuclear safety risk to Toledo Edison. He has no direct responsibility in the implementation of the Toledo Edison Nuclear Quality Assurance Program.

#### 17.2.1.1.14 Industrial Security Director

The Toledo Edison Industrial Security Director reports directly to the Toledo Edison Vice President, Administrative Services. He directs, manages, and administers the corporate security program to all Toledo Edison personnel, facilities, properties, inventories and other assets including the protection of the general public which might be endangered as a result of Toledo Edison security incidents. He is responsible for ensuring that nuclear security-related activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

##### 17.2.1.1.14.1 Nuclear Security Manager

The Nuclear Security Manager reports directly to the Industrial Security Director. He manages and supervises all nuclear security activities including the planning, designing, organizing, coordinating, and implementing of the nuclear security plan and programs. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.15 Procurement Director

The Procurement Director reports directly to the Toledo Edison Vice President, Administrative Services. He directs the purchasing and material control activities of the Toledo Edison Company ensuring that materials, equipment, and services are obtained economically and expediently. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.15.1 Purchasing Manager

The Purchasing Manager reports directly to the Procurement Director. He manages, directs, and coordinates the purchasing and contracting of electrical, mechanical, modification, and general goods and services for Toledo Edison. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.15.2 Materials Manager

The Materials Manager reports directly to the Procurement Director. He directs and administers the material control activities including storage of materials at the Davis-Besse Nuclear Power Station. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.16 Building and Office Services Director

The Building and Office Services Director reports directly to the Toledo Edison Vice President, Administrative Services. He directs the Facility Management and Office Services activities of the Toledo Edison Company ensuring that Toledo Edison facilities are managed in an efficient and effective manner and that office services are provided in a manner consistent with overall corporate policy. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.16.1 Record Services Supervisor

The Toledo Edison Records Services Supervisor reports directly to the Toledo Edison Building and Office Services Director. The Records Services Supervisor supervises and engages in activities involving records management. He is responsible for ensuring that these activities are carried out in accordance with the Quality Assurance provisions outlined in Figure 17-2.

#### 17.2.1.1.17 Station Review Board

The Station Review Board (SRB) reports to the Station Superintendent and is responsible for reviews of procedures, data, and deficiencies related to nuclear safety. The SRB may, as it determines necessary, direct investigations by Station personnel of facility activities to assure that facility nuclear safety related activities have been, are being, and will be performed in accordance with approved written procedures. Generally, the SRB is concerned with the technical and nuclear safety related aspects of facility operation and coordinates its activities with Operations Quality Assurance to satisfy the QA requirements for facility operation. The Assistant Davis-Besse Station Superintendent, as chairman of the SRB, is responsible for providing an SRB charter describing SRB activities which meet the requirements of Section 6 of the Davis-Besse Unit #1 Technical Specifications and ANSI N18.7.

#### 17.2.1.1.18 Company Nuclear Review Board

The Company Nuclear Review Board (CNRB) reports to the President and is responsible for initiating the review of nuclear safety related activities for the purpose of assuring itself that the Toledo Edison Nuclear Quality Assurance Program is being complied with. The nature of CNRB activities includes the monitoring and review of functions and problems pertaining to nuclear safety related activities. At his discretion, the Toledo Edison President may instruct the CNRB to review, monitor, advise, investigate or seek resolution to any nuclear safety related matter. The Toledo Edison Fossil Facilities Engineering and Construction Director, as chairman of the CNRB, is responsible for providing a CNRB charter which meets the requirements of Section 6 of the Davis-Besse Unit #1 Technical Specifications and ANSI N18.7.

#### 17.2.1.2 Qualifications

- 17.2.1.2.1 Personnel performing quality related activities shall be qualified in accordance with the Davis-Besse Unit #1 Technical Specifications.
- 17.2.1.2.2 The minimum education and experience requirements for the position of QA Director are detailed below.
- 17.2.1.2.1 The educational requirement for this position is a Bachelor's Degree in an engineering or science discipline such as physics, electrical, civil, industrial, mechanical, welding, metallurgy, or nuclear engineering; or a Professional Engineering registration.
- 17.2.1.2.2 The minimum experience requirement is five years in a responsible management position for the design, construction, or operation of a nuclear facility, including at least two years experience in the QA field.
- 17.2.1.2.3 The Quality Assurance Director shall have broad experience and formal training in the performance of QA activities, including inspection and testing. He must be capable of planning and providing supervision to QA personnel who are engaged in inspecting, testing, reviewing, evaluating, and auditing the adequacy of activities to accomplish QA objectives.

#### 17.2.1.3 Delegation of Authority

Individuals may delegate the performance of their duties to others. However, the responsibility for these duties may not be delegated. Delegation of authority shall be in writing. Delegated duties may not be further delegated by the delegated personnel.



## 17.2.2 Quality Assurance Program

### 17.2.2.0 Purpose

This section describes the Toledo Edison Nuclear Quality Assurance Program. This program complies with the NRC Regulatory Guides, ANSI Standards, and Industry Codes as noted in Table 17-2.1.

### 17.2.2.1 Program Applicability

The Toledo Edison Nuclear Quality Assurance Program is applied to:

- 17.2.2.1.1 The nuclear safety related structures, systems, and components identified in the Q-List. The Q-List is prepared and approved by the Nuclear Facility Engineering Director.
- 17.2.2.1.2 The operations related activities identified in the list of Activities under the Purview of the Quality Assurance Program (Table 17-2). This list is prepared by the Davis-Besse Station Superintendent and approved by the Nuclear Facility Engineering Director.
- 17.2.2.1.3 ASME Boiler and Pressure Vessel Code Components to include ASME Section I, III, IV, and VIII components.
- 17.2.2.1.4 Any structures, systems, components, or activities other than those specified above which are identified by the Toledo Edison Nuclear Facility Engineering Director or the Davis-Besse Station Superintendent as requiring Quality Assurance coverage.

### 17.2.2.2 Program Implementation

- 17.2.2.2.1 The organizational structure, within which the Toledo Edison Nuclear Quality Assurance Program is implemented, is described in Section 17.2.1.
- 17.2.2.2.2 The Toledo Edison Nuclear Quality Assurance Program complies with the NRC Regulatory Guides, ANSI Standards, and Industry Codes as noted in Table 17-2.1. The Toledo Edison Nuclear Quality Assurance Manual, including revisions thereto, shall be approved by the Vice President, Nuclear, and the Quality Assurance Director, and accepted by the Authorized Nuclear Inspector Supervisor.
- 17.2.2.2.3 Details of this program are supplemented by Division Procedures which are written to detail specific implementation methods. Division Procedures, along with the approval authority, are listed below.

#### DIVISION PROCEDURE

Quality Assurance Instructions

Quality Control Instructions

#### APPROVED BY

Quality Assurance Director

Quality Assurance Director

Nuclear Engineering Instructions	Nuclear Facility Engineering Director and Quality Assurance Director
Facility Engineering Instructions	Facility Engineering General Supervisor and Quality Assurance Director
Facility Modification Department Procedures	Facility Modification Manager and Quality Assurance Director
<u>DIVISION PROCEDURE</u>	<u>APPROVED BY</u>
Material Control Procedures	Procurement Director and Quality Assurance Director
Procurement Instructions	Procurement Director and Quality Assurance Director
Administrative Procedures (including The Security Program)	Station Superintendent, Station Review Board, and Quality Assurance Director
Nuclear Services Instructions	Nuclear Services Director and Quality Assurance Director
Records Services Instructions	Records Services Supervisor and Quality Assurance Director

17.2.2.2.3.1 The Station Administrative and Facility Modification Department Procedures may also be supplemented by work, operational and test procedures. These procedures are approved by the Station Review Board and the Station Superintendent.

17.2.2.2.3.1.1 Work, operational, and test procedures for non-routine or non-repetitive activities are also approved by the Quality Assurance Director. Examples of these activities are modifications to Q-listed structures, systems and component; major maintenance on Q-listed items, fuel handling, inservice inspection; and tests and experiments subject to 10CFR50.59.

17.2.2.2.3.1.2 Work, operational and test procedures for routine or repetitive activities are not approved by Quality Assurance. Examples of routine or repetitive activities are preventative maintenance, minor corrective maintenance, surveillance and periodic tests and calibrations, health physics activities, operations performed by licensed reactor operators, and training.

17.2.2.2.4 This manual, division procedures, and work, operational, and test procedures shall be controlled in accordance with the requirements of Section 17.2.6.

### 17.2.2.3 Indoctrination and Training

- 17.2.2.3.1 Personnel assigned to nuclear positions shall be qualified in accordance with the Davis-Besse Unit #1 Technical Specifications.
- 17.2.2.3.2 Prior to gaining unescorted access to the Davis-Besse Nuclear Power Station, personnel shall receive training in the following areas. The Nuclear Services Director is responsible for providing this training.
  - 17.2.2.3.2.1 Security
  - 17.2.2.3.2.2 Industrial Safety
  - 17.2.2.3.2.3 Radiation Safety
  - 17.2.2.3.2.4 Quality Assurance
  - 17.2.2.3.2.5 Emergency Plan
  - 17.2.2.3.2.6 Radiological Controls (This training is necessary only if access to the Radiation Access Controlled Area is required.)
- 17.2.2.3.3 The Nuclear Services Director is responsible for providing training, retraining, and replacement training programs to meet the requirements of the Davis-Besse Unit #1 Technical Specifications and ANSI N18.1. This program shall include training in Quality Assurance requirements and job related procedures. It shall be continually updated to reflect requirement changes that affect the program scope. Training program sessions shall be documented as to objective, content of the session, attendees, and date of attendance.

### 17.2.2.4 Resolution of Conflict

Unresolved QA matters shall be reported to the next level of management until resolved. The Toledo Edison President is the final authority in resolving QA matters.

### 17.2.2.5 Management Audit

The status and adequacy of this program shall be reviewed annually by the Vice-President, Nuclear.

## 17.2.3 Design Control

### 17.2.3.0 Purpose

This section establishes measures which assure that design activities are carried out in a planned, controlled, and orderly manner, and that design requirements such as design bases, regulatory requirements, and appropriate quality standards are correctly translated into specifications, drawings, procedures, instructions, and other design documents.

This section also ensures that design control measures are commensurate with those applied to the original design, and are approved by the organization that performed the original design, if possible. Design activities are carried out in accordance with the provisions of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64.

#### 17.2.3.1 Facility Change Requests

17.2.3.1.1 Design changes are requested by the station or engineering staff utilizing a Facility Change Request.

17.2.3.1.2 Upon approval of the design change by the Station Superintendent and the Nuclear Facility Engineering Director, Nuclear Facility Engineering shall perform a safety review to determine if the proposed design change is Nuclear Safety Related. A design change is considered to be Nuclear Safety Related when any of the following criteria apply:

17.2.3.1.2.1 The proposed change involves structures, systems, or components which are on the Q-List.

17.2.3.1.2.2 The proposed change involves non-Q-List items which could have an identifiable effect on the safety function of Q-List structures, systems, or components.

17.2.3.1.2.3 The proposed change affects in any way the parameters, assumptions, or analyses described in Chapter 15, "Accident Analyses" of the FSAR.

17.2.3.1.3 If the design change is considered to be Nuclear Safety Related, the Nuclear Facility Engineering Director is responsible for the preparation and approval of a safety evaluation in accordance with 10CFR50.59 to determine if the design change involves an unreviewed safety question. Based upon the results of the safety evaluation, he is responsible for determining the need for an amendment to the operating license in accordance with the requirements of 10CFR50.59. Prior to applying for an amendment to the operating license, the Nuclear Licensing Manager shall ensure that an amendment request has been approved by the Station Review Board, the Station Superintendent, and the Company Nuclear Review Board.

#### 17.2.3.2 Design Objectives

17.2.3.2.1 Upon completion of the safety evaluation, the Nuclear Facility Engineering Director shall prepare the design objectives within which the proposed design change must fall. The design objectives shall be determined in accordance with written instructions which meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64. He is also responsible for developing a test outline to describe the testing to be performed following the implementation of the design change to prove that the design objectives have been met.

### 17.2.3.3 Design Process

- 17.2.3.3.1 The Nuclear Facility Engineering Director is responsible for translating the design objectives into drawings, procedures, or instructions. As appropriate to the design, the design process shall include considerations such as physics, stress, materials, thermal, hydraulic, radiation and accident analysis; reconciliation with the original Design Specifications, including ASME Section XI; appropriate design bases, Codes, standards and regulations; acceptance and rejection criteria; and Quality Assurance/Quality Control requirements. This design process shall be performed in accordance with procedures which meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64. Whenever computer programs or codes are utilized in the design process, their validity shall be determined and verified.
- 17.2.3.3.2 Following the design, the Nuclear Facility Engineering Director is responsible for ensuring design verification activities are performed to provide assurance that the design objectives have been met. This design verification includes the use of design reviews, checks, or tests as appropriate to ensure the adequacy of the design with regard to design considerations and shall be performed in accordance with procedures which meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64. The design verification may be performed by the originator's supervisor provided the supervisor did not specify a singular design approach, or rule out certain design considerations, did not establish the design inputs used in the design, or provided the supervisor is the only individual in the organization competent to perform the verification.
- 17.2.3.3.3 The Nuclear Facility Engineering Director is responsible for the preparation of procedures which describe the internal design interfaces between the Nuclear Facility Engineering organizations. These procedures shall meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64.
- 17.2.3.3.4 The Nuclear Facility Engineering Director may elect to utilize outside design agencies in the design and design verification processes. The Nuclear Facility Engineering Director shall assure that the appropriate QA requirements are imposed on the outside design agency in accordance with the provisions of Section 17.2.4. When outside design agencies are utilized, the Nuclear Facility Engineering Director shall ensure that Nuclear Facility Engineering and the outside design agency have procedures to describe their design interfaces. These procedures shall meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64.

### 17.2.3.4 Engineering Work Package Preparation

- 17.2.3.4.1 The Facility Engineering General Supervisor is responsible for preparation and approval of the engineering work package,



including drawings, utilized to implement the design developed in Paragraph 17.2.3.3. These drawings and design documents shall be prepared in accordance with procedures which meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64.

- 17.2.3.4.2 The Nuclear Facility Engineering Director is responsible for the preparation of procurement specifications and installation specifications to be utilized in the design implementation. These specifications shall be prepared in accordance with procedures which assure that applicable regulatory requirements, design bases and appropriate quality standards are correctly translated into specifications. These procedures shall meet the requirements of ANSI N45.2.11 as endorsed by NRC Regulatory Guide 1.64. These specifications shall be approved by the Nuclear Facility Engineering Director and the Quality Assurance Director. The Quality Assurance review is performed to assure that the appropriate Quality Assurance requirements have been properly included.
- 17.2.3.4.3 The Engineering Services Manager is responsible for the control of the engineering work package including drawings, procurement specifications, and installation specifications in accordance with Section 17.2.6.
- 17.2.3.4.4 Once the design has been completed, the Facility Engineering General Supervisor is responsible for preparing a Facility Change Request Work Package to implement the design. The Facility Change Request Work Package consists of the Facility Change Request Form, the Engineering Work Package, and the applicable Safety Evaluation. This Facility Change Request Work Package is approved by the Facility Engineering General Supervisor, the Station Review Board, and the Station Superintendent prior to field implementation.

#### 17.2.3.5 Facility Change Request Work Package Implementation

Upon approval, the Engineering Services Manager forwards the Facility Change Request Work Package to the organization responsible for its implementation. This organization shall perform the necessary scheduling and procedure preparation and obtain the necessary approvals to interface the Facility Change Request with the station staff. Facility Change Request Work Packages are implemented through the Maintenance Work Order Process. The Engineering Services Manager shall also forward a copy of the Facility Change Request and its safety evaluation to the Chairman of the Company Nuclear Review Board's Safety Evaluation Review Subcommittee.

#### 17.2.3.6 Field Changes

- 17.2.3.6.1 During the implementation of the Facility Change Request, changes to the Facility Change Request Work Package may be necessary. These changes shall be reported to the Facility Engineering General Supervisor or an organization designated by him utilizing a Field Change Notice Form. The Field Change Notice shall be processed in accordance with procedures which meet the requirements of ANSI N45.2.11 as endorsed by NRC

Regulatory Guide 1.64. The procedures shall also require that any design change resulting from the Field Change Notice must fall within the scope of the Facility Change Request's safety evaluation. If the change falls outside the scope of the safety evaluation, either a revision to the Facility Change Request shall be processed or a new Facility Change Request initiated.

- 17.2.3.6.2 A Field Change Notice may not be implemented without the prior written approval of the Facility Engineering General Supervisor or the organization designated by him.

#### 17.2.3.7 Post Engineering Work Package Implementation

- 17.2.3.7.1 Following implementation of the Facility Change Request and prior to placing the modification into service, the Station Superintendent is responsible for performing a post-modification acceptance test in accordance with the requirements of Section 17.2.11.
- 17.2.3.7.2 Upon completion of Facility Change Request Work Package and prior to placing the modification into service, the Station Superintendent shall also ensure that the appropriate station procedures and drawings have been revised to reflect the design change. He is also responsible for ensuring that the revised procedures are forwarded to the Nuclear Training Manager in ample time to support the training of the operating staff.
- 17.2.3.7.3 Upon completion of the Facility Change Request Work Package, the implementing organization shall notify the Engineering Services Manager that the Facility Change Request has been implemented. The Engineering Services Manager is responsible for promptly updating and distributing the affected drawings in accordance with Paragraph 17.2.3.7 and Section 17.2.6.
- 17.2.3.7.4 The Davis-Besse Station Superintendent is responsible for reporting facility changes to the NRC in accordance with 10CFR50.59 and the Davis-Besse Unit #1 Technical Specifications.

#### 17.2.4 Procurement Document Control

##### 17.2.4.0 Purpose

This section establishes measures which ensure the proper preparation, review, approval, and control of procurement documents.

##### 17.2.4.1 Request for Inquiry or Purchase

- 17.2.4.1.1 All material, including warranty replacements and services, received for the Davis-Besse Nuclear Power Station and all material returned to a supplier/contractor for repair shall be authorized by a purchase order with the exception of the procurement of Nuclear Fuel. Purchase Requisitions or Repeating Purchase Requisitions as authorized by Stock Code Change Forms are used to request the Purchasing Department to either obtain



bids or issue a Purchase Order for materials or services. The Repeating Purchase Requisition is used to order materials to be placed into the Toledo Edison Stock System while the Purchase Requisition is used to procure materials which are not to be retained in the Toledo Edison Stock System. The letter "Q" is placed on the Purchase Requisition or Stock Code Change form if the material or service is Nuclear Safety Related. The letter "A" is used to denote ASME Code materials and the letter "F" is used to denote fire protection materials. Materials which are both "Q" and "A" or "F" shall be purchased as "Q". These letters indicate that the material or service falls under the jurisdiction of this QA Program.

- 17.2.4.1.1.1 Nuclear Fuel is procured through the use of formal contracts signed by an Officer of the Toledo Edison Company rather than being procured through the use of a purchase order. For Nuclear Fuel procurement, the Nuclear Fuel Manager acts in the capacity of the Purchasing Director and is responsible for carrying out his responsibilities as they relate to Nuclear Fuel Procurement.
- 17.2.4.1.2 Purchase Requisitions/Contracts shall either directly specify the technical and quality requirements for a material or service or reference engineering specifications which contain these requirements. These requirements shall meet the requirements of ANSI N45.2.13 as endorsed by Regulatory Guide 1.123, ANSI N18.7 as endorsed by NRC Regulatory Guide 1.33, and include the following as applicable to the requested material or service:
  - 17.2.4.1.2.1 Scope of Work.
  - 17.2.4.1.2.2 Technical Requirements including:
    - 17.2.4.1.2.2.1 Source Verification Hold/Witness Points as addressed in Section 17.2.7. When source verification Hold/Witness Points are appropriate, the Hold/Witness Points shall be identified in the procurement documents along with the minimum time of advance notice and the method of communication of such notice to Toledo Edison or its designated agent.
    - 17.2.4.1.2.2.2 ANSI N45.2.2, Packaging, Handling, Shipping and Storage Level as addressed in Section 17.2.13.
    - 17.2.4.1.2.2.3 10CFR21 Requirements.
    - 17.2.4.1.2.2.4 Environmental Qualification Requirements.
    - 17.2.4.1.2.2.5 ASME Sections II, III, and XI Requirements.
  - 17.2.4.1.2.3 Quality Assurance Program Requirements.
  - 17.2.4.1.2.4 Right of Access.

- 17.2.4.1.2.5 Documentation as necessary to support Code or method of acceptance requirements outlined in ANSI N45.2.13.
- 17.2.4.1.2.6 Nonconformances and Corrective Action Requirements as outlined in ANSI N45.2.13.

#### 17.2.4.2 Approval of Requests for Inquiry or Purchase

- 17.2.4.2.1 Prior to a request for bid or a purchase, the purchase requisition/contract shall be approved by the Facility Engineering General Supervisor and the Quality Engineering Supervisor.
  - 17.2.4.2.1.1 The Facility Engineering approval indicates that the technical and quality requirements are acceptable. Quality requirements are acceptable when they are sufficient, clear, and adequately stated; can be inspected and controlled; and include adequate accept/reject criteria.
  - 17.2.4.2.1.2 The Quality Engineering approval indicates that the quality requirements are sufficient, clear and adequately stated; all quality requirements can be inspected and controlled; adequate accept/reject criteria are included; and that the supplier/contractor has the capability to comply with the quality requirements. Supplier/Contractor selection is described in Paragraph 17.2.4.4.

#### 17.2.4.3 Bid Evaluation

- 17.2.4.3.1 The request for bid may be sent to any organization whom the requisitioner, Nuclear Facility Engineering, or Purchasing feels are qualified to provide the requested material or service. Quality Assurance approval of the bidder's list is not necessary prior to issuing a request for bid.
- 17.2.4.3.2 Upon receipt of bids, Purchasing is responsible for coordinating the bid evaluation. The following organizations are responsible for reviewing the specified areas and any exceptions to these areas:
  - 17.2.4.3.2.1 Purchasing - cost considerations.
  - 17.2.4.3.2.2 Requisitioner - schedule considerations.
  - 17.2.4.3.2.3 Nuclear Facility Engineering - The supplier's/contractor's capability to comply with the engineering requirements and any exceptions to engineering and quality requirements.
  - 17.2.4.3.2.4 Quality Engineering - Supplier's/contractor's capability to comply with the quality requirements as determined in Paragraph 17.2.4.4.
- 17.2.4.3.3 All alternatives or exceptions proposed by the supplier/contractor shall be resolved in accordance with Paragraph 17.2.4.3.2. Any

accepted changes to engineering or quality requirements shall be incorporated into the procurement documents specified in Paragraph 17.2.4.1.2.

17.2.4.3.4 Once a supplier/contractor has been selected, a purchase requisition/contract shall be processed in accordance with Paragraphs 17.2.4.1 and 17.2.4.2.

17.2.4.3.5 During the procurement of Nuclear Fuel, the Nuclear Fuel Manager is responsible for carrying out the responsibilities of Purchasing as described in the Bid Evaluation process.

#### 17.2.4.4 Supplier/Contractor Selection

17.2.4.4.1 The Quality Engineering Supervisor shall review the purchase requisition/contract to determine that the supplier/contractor is contained on the Evaluated Vendors' List for the items/services being supplied. The methods used to place suppliers on the Evaluated Vendors' List shall be in accordance with the requirements of ANSI N45.2.13 as endorsed by NRC Regulatory Guide 1.123.

17.2.4.4.2 Suppliers of Code materials or services shall either hold the appropriate ASME Certificate of Authorization, Quality System Certificate or be surveyed for compliance with the appropriate Code sections prior to award of the purchase order or placing the supplier on the Evaluated Vendors' List.

17.2.4.4.3 The Quality Engineering Supervisor is responsible for controlling and maintaining the Evaluated Vendors' List.

#### 17.2.4.5 Changes to Procurement Documents

All changes to the technical and quality requirements, including supplier/contractor selection, shall be subject to the same degree of engineering and quality assurance review and approval as the original document received.

#### 17.2.4.6 General Material Inspection Checklist

During the requisitioning process, a General Material Inspection Checklist shall be prepared by Nuclear Facility Engineering to describe the characteristics to be inspected during receipt inspection as described in Section 17.2.7. In addition, Nuclear Facility Engineering shall also note the required storage level and any special handling or testing requirements to be followed during receipt or storage on the General Material Inspection Checklist.

#### 17.2.5 Instructions, Procedures and Drawings

##### 17.2.5.0 Purpose

This section establishes measures which ensure that activities affecting quality are prescribed by documented instructions, procedures, or drawings of a type appropriate to the activity and accomplished in accordance with these documents.

### 17.2.5.1 Instructions and Procedures

17.2.5.1.1 Division Directors performing activities required by this QA Manual shall ensure these activities are carried out in accordance with approved procedures. These procedures shall:

- 17.2.5.1.1.1 Be developed as appropriate to the activity involved.
- 17.2.5.1.1.2 Be in sufficient detail to accomplish the activity.
- 17.2.5.1.1.3 Implement the appropriate aspects of Design Specifications, drawings, and other Design documents.
- 17.2.5.1.1.4 Be complete, current, and contain sufficient quantitative (such as dimensions, tolerance, and operating units) and qualitative (such as workmanship samples) acceptance criteria as appropriate to verify satisfactory work performance.
- 17.2.5.1.1.5 As applicable to the procedure type, comply with the requirements of ANSI N18.7 as endorsed by NRC Regulatory Guide 1.33.
- 17.2.5.1.1.6 Be uniquely identified.
- 17.2.5.1.1.7 Be appropriately approved and available at the work place, prior to initiating a quality affecting activity.
- 17.2.5.1.2 Procedures shall be approved as described in Section 17.2.2.
- 17.2.5.1.3 Procedures shall be controlled in accordance with Section 17.2.6.
- 17.2.5.1.4 Temporary modifications which do not change the intent of the procedure may be made to approved procedures provided the temporary modification is reviewed and approved by the organization approving the original procedure. The temporary modifications to Station procedures shall be processed in accordance with the requirements of the Davis-Besse Unit #1 Technical Specifications. Temporary modifications shall be documented, and if appropriate, incorporated into the next revision of the affected procedure.

### 17.2.5.2 Drawings

Design drawings and design documents shall meet the requirements of Section 17.2.3.

### 17.2.5.3 Procedure Review

Procedures shall be periodically reviewed in accordance with the requirements of ANSI N18.7 as endorsed by NRC Regulatory Guide 1.33.

## 17.2.6 Document Control

### 17.2.6.0 Purpose

This section establishes measures to control the issuance, use and distribution of quality-related documents such as specifications, instructions, procedures, drawings (including "as-builts"), procurement documents, Nonconformance Reports, the Safety Analysis Report, the Nuclear Quality Assurance Manual, audit reports, and Corrective Action Requests.

### 17.2.6.1 Approval of Documents

17.2.6.1.1 The documents noted in Paragraph 17.2.6.0 shall be reviewed for adequacy and approved as follows:

- 17.2.6.1.1.1 Specifications, drawings, and design documents (including "as-built" drawings) shall be approved as required by Section 17.2.3.
- 17.2.6.1.1.2 Instructions and procedures shall be approved as required by Section 17.2.2.
- 17.2.6.1.1.3 Procurement documents shall be approved as required by Section 17.2.4.
- 17.2.6.1.1.4 Nonconformance Reports and Supplier Deviation Reports shall be approved as required by Section 17.2.15.
- 17.2.6.1.1.5 The Safety Analysis Report shall be reviewed and approved by the Nuclear Licensing Manager.
- 17.2.6.1.1.6 The Nuclear Quality Assurance Manual shall be approved as required by Section 17.2.2.
- 17.2.6.1.1.7 Corrective action requests as described in Section 17.2.16 shall be approved by the Quality Assurance Director.
- 17.2.6.1.1.8 Audit Reports shall be approved as described in Section 17.2.18.

17.2.6.1.2 Changes to approved documents shall be reviewed and approved by the same organizations that performed the original review and approval unless otherwise specified by the responsible Division Director or Manager.

- 17.2.6.1.2.1 When different organizations are utilized, the Division Director or Manager shall ensure that the reviewing organization has access to pertinent background information upon which to base its review and has an adequate understanding of the requirements and intent of the original document.



#### 17.2.6.2 Responsibilities

- 17.2.6.2.1 The Engineering Services Manager is responsible for the control of specifications, drawings, and design documents.
- 17.2.6.2.2 Division Directors are responsible for the control of instructions and procedures issued by their organizations.
- 17.2.6.2.3 The Procurement Director is responsible for the control of procurement documents.
- 17.2.6.2.4 The Nuclear Licensing Manager is responsible for the control of the Safety Analysis Report.
- 17.2.6.2.5 The Quality Assurance Director is responsible for the control of the Nuclear Quality Assurance Manual, corrective action requests, and audit reports.
- 17.2.6.2.6 The Quality Control Supervisor is responsible for the control of Nonconformance Reports.
- 17.2.6.2.7 The Quality Engineering Supervisor is responsible for the control of Supplier Deviation Reports.

#### 17.2.6.3 Distribution of Documents

- 17.2.6.3.1 Documents shall be distributed to the location where the prescribed activity is performed. Distribution Lists shall be prepared and implemented to show the correct distribution of each document. These lists shall show the latest approved revision number and any cancellations or deletions. The Distribution Lists shall be updated and distributed to responsible personnel on a periodic basis.
- 17.2.6.3.2 A receipt control system shall be utilized to distribute documents in accordance with the distribution lists.
  - 17.2.6.3.2.1 The receipt system shall require recipients to acknowledge receipt of transmitted documents and that superseded documents have been either returned, destroyed, or marked "Void". Internal recipients should acknowledge receipt within five (5) working days while external recipients should respond within thirty (30) days.
  - 17.2.6.3.2.2 Organizations distributing documents shall perform periodic surveys to ensure that receipt of transmitted documents has been acknowledged by recipients within the desired time periods. If receipt has not been acknowledged, the distributing organization shall followup the transmittal to determine its status.

17.2.6.4 10CFR50.59 Review

- 17.2.6.4.1 The Quality Assurance Director shall review all changes to the QA Manual in accordance with the requirements of 10CFR50.59 and 10CFR50.54 to determine if they involve an unreviewed safety question or reduce the QA Program commitments described in the Updated Safety Analysis Report. Safety evaluations, when required, shall be approved by the Quality Assurance Director.
- 17.2.6.4.2 The Station Superintendent shall review all changes to the Station administrative, work, operational, and test procedures in accordance with the requirements of 10CFR50.59 to determine if they involve an unreviewed safety question. Safety evaluations, when required, shall be approved by the Station Superintendent.

17.2.6.5 Use of Procedures

Personnel responsible for the performance of activities affecting quality shall ensure that work plans specify the instructions, procedures, and drawings, including the applicable revision thereof, necessary to carry out the quality activity, and that the necessary documents are available at the work location of the activity prior to commencing the work.

17.2.7 Control of Purchased Material, Equipment, Parts and Components17.2.7.0 Purpose

This section establishes measures to assure that all purchased material, items, and services conform to the requirements of the purchase order.

17.2.7.1 Source Verification

- 17.2.7.1.1 The Facility Engineering General Supervisor is responsible for recommending those materials or services for which source verification activities are required. Normally, source verification is required when the item or service meets any of the following criteria:
  - 17.2.7.1.1.1 Vital to plant safety; or
  - 17.2.7.1.1.2 Difficult to verify quality characteristics after delivery; or
  - 17.2.7.1.1.3 Complex in design, manufacture, and test.
- 17.2.7.1.2 The Facility Engineering General Supervisor shall notify the Quality Engineering Supervisor when a material or service requires source verification. The Quality Engineering Supervisor shall then determine the extent of the source verification activity including any Toledo Edison hold/witness points to be imposed on the supplier. The Quality Engineering Supervisor is responsible for incorporating the Toledo Edison hold/witness



Points into the procurement documents in accordance with Section 17.2.4.

- 17.2.7.1.3 The Quality Engineering Supervisor is responsible for carrying out the Source Verification Plan. The Source Verification Plan shall meet the requirements of ANSI N45.2.13 as endorsed by NRC Regulatory Guide 1.123.

#### 17.2.7.2 Acceptance of Materials

- 17.2.7.2.1 During off-loading and unpackaging, all materials shall be inspected for shipping damage by the Material Control Department. If no damage is noted, the material shall be tagged with a Hold for Acceptance Tag and placed into a Hold Area, if physically possible. If damaged, Material Control shall either refuse the material or place the material into a Hold Area, if physically possible. Damaged material shall also be tagged with a Hold for Acceptance Tag. In addition, Quality Engineering shall also be notified of the damage.
- 17.2.7.2.2 The material shall then be receipt inspected by Quality Engineering utilizing the General Material Inspection Checklist and its associated procurement documents. This receipt inspection shall meet the requirements of ANSI N45.2.2 as endorsed by NRC Regulatory Guide 1.38.
- 17.2.7.2.2.1 Unacceptable material shall be identified in accordance with Section 17.2.15.
- 17.2.7.2.2.2 Acceptable material shall be identified individually or by bulk with an Accept Tag. This material shall then be issued for storage or use in accordance with Section 17.2.13.
- 17.2.7.2.3 Source verification, supplier-furnished documentation such as CMTRs and Code Data Forms, and post-installation testing as described in ANSI N45.2.2 as endorsed by NRC Regulatory Guide 1.38 may be used by Quality Engineering to supplement the receipt inspection of materials and items. Supplier-furnished documentation shall be accepted by Quality Engineering prior to acceptance of the material. CMTRs shall be reviewed for compliance with ASME Sections II and III.
- 17.2.7.2.3.1 When certificates of conformance are received from suppliers, their validity shall be verified and documented by Quality Engineering as required by ANSI N45.2.13 as endorsed by NRC Regulatory Guide 1.123.

#### 17.2.7.3 Acceptance of Services

- 17.2.7.3.1 Services such as inspection, engineering and consulting services; and installation, repair, overhaul or maintenance work shall be accepted by the interfacing Toledo Edison Division Director or Manager by one or more of the following methods:

- 17.2.7.3.1.1 Technical verification of data provided.
- 17.2.7.3.1.2 Surveillance and/or audit of the activity.
- 17.2.7.3.1.3 Review of objective evidence for conformance to the procurement document requirements such as certifications, stress reports, etc.

## 17.2.8 Identification and Control of Materials, Parts, and Components

### 17.2.8.0 Purpose

This section describes measures for the identification and control of materials (including consumables), parts, and components, including partially fabricated subassemblies during storage and installation.

### 17.2.8.1 Material Release

- 17.2.8.1.1 Materials issued from the Storeroom by Material Control personnel shall be released via a Material Issue Ticket which has been prepared by the requesting organization. The Material Issue Ticket (MIT) shall have the Purchase Order number written on it to provide traceability between the material withdrawn and the material's receiving inspection records and associated quality documentation. The MIT number and/or the material's Purchase Order number shall be written on the MWO by Station or Facility Modification personnel to provide traceability between the material used during the implementation of a MWO and the material's purchase order. A copy of the MIT should also be maintained with its associated MWO work package. For bulk materials, the MIT shall remain at the bulk material issue point until all material on that MIT is issued. In addition, a second copy of the MIT shall be placed into the Information and Records Management System in accordance with Section 17.2.17 by Material Control to provide traceability between a purchase order and the MWO where the material was used.
- 17.2.8.1.2 Only material in an accept status may be withdrawn from the Storeroom. Material not in an accept status may be withdrawn only if a conditional release is processed in accordance with Section 17.2.15.

### 17.2.8.2 Identification of Materials

- 17.2.8.2.1 Prior to materials being released from the Storeroom, Material Control personnel shall ensure that they are identified, as applicable, with their part number, serial number, heat number, reel number, etc. and their purchase order number and that this information has been entered on the Material Issue Ticket.
- 17.2.8.2.2 When materials are subdivided, the markings shall be transferred by Station or Facility Modification personnel to each part or piece prior to subdividing. The location of such marks shall be such as to preclude a degradation of the material's functional

capability or quality. Traceability to the materials' purchase order shall also be maintained and documented when materials are subdivided. This documentation shall be maintained with its associated MWO package. In addition, this information shall also be placed into the Information and Records Management System in accordance with Section 17.2.17 to provide traceability between a purchase order and the MWO where the material was used.

- 17.2.8.2.3 The Facility Modification Manager and the Davis-Besse Maintenance Engineer are responsible for maintaining material identification and traceability in accordance with the provisions of Paragraph 17.2.8.2 for material under their cognizance. This includes material released from storage but awaiting installation.
- 17.2.8.2.4 The Procurement Director is responsible for maintaining material identification in accordance with the provisions of Paragraph 17.2.8.2 for material in storage under his cognizance.
- 17.2.8.2.5 When it is not physically possible to mark or tag materials, the MIT shall serve to provide traceability to the material's shipping container, lot, bundle, lift, purchase order, etc.

#### 17.2.8.3 Markings

Markings shall meet the requirements of Section 17.2.14.

### 17.2.9 Control of Special Processes

#### 17.2.9.0 Purpose

This section establishes measures to assure that special processes, such as Welding, Heat Treating, cleaning, coating, and Nondestructive Examination (NDE) are accomplished under controlled conditions in accordance with applicable Codes, standards, specifications, and other special requirements using qualified personnel, procedures, and equipment.

#### 17.2.9.1 Code Welding

- 17.2.9.1.1 Welding essential and non-essential variables as defined in Section III, Section IX, and Section XI of the ASME Code are contained in the Welding Procedure Specifications (WPS). The WPS is prepared by the Davis-Besse Maintenance Engineer and approved by the Code Inspection Supervisor.
- 17.2.9.1.2 Each WPS shall be qualified in accordance with the requirements of Section III, Section IX, and Section XI of the ASME Code. This qualification is documented on a Procedure Qualification Record (PQR). Code Inspection shall witness the welding of the qualification coupon and shall either test or have tested the coupon to meet the requirements of Section III, Section IX, and Section XI of the ASME Code. The Code Inspection Supervisor is responsible for preparing and certifying PQRs.

17.2.9.1.3 Each welder shall be qualified in accordance with the requirements of Section IX of the ASME Code. Code Inspection shall witness the welding of a qualification coupon and shall either test, or have tested, the coupon to meet the requirements of Section IX of the ASME Code. The Code Inspection Supervisor is responsible for preparing and certifying the Welder Performance Qualification Test Record. Upon certification, the Code Inspection Supervisor shall assign the welder a unique identification number.

17.2.9.1.3.1 The Davis-Besse Maintenance Engineer and the Facility Modification Manager are responsible for maintaining their welders' records current and maintaining qualifications in accordance with the requirements of Section IX of the ASME Code and the requirements of the State of Ohio (OBBC Chapter 4101:8-15-01, Part (H)).

17.2.9.1.4 The Davis-Besse Maintenance Engineer and Facility Modification Manager are responsible for ensuring that only qualified welding procedures are used in the performance of repairs/modifications assigned to their areas and that qualified welders are utilized in performing welding operations. The WPS to be utilized on each job is denoted on the Weld Traveler as described in Paragraph 17.2.9.4.

17.2.9.1.5 Welding Procedures are controlled by the Station Superintendent in accordance with Section 17.2.6.

#### 17.2.9.2 Non-Code Welding

The requirements of Paragraph 17.2.9.1 also apply to non-Code welding. However, the industry codes or standards, or the installation specification governing the welding shall be substituted in place of the ASME Code in Paragraph 17.2.9.1. Weld Travelers as described in Paragraph 17.2.9.4 are also used for non-Code welding except for the welding of standard electrical supports. The welding of standard electrical supports is documented through the MWO process.

#### 17.2.9.3 Filler Metal Control

17.2.9.3.1 Filler metal used during welding operations shall be purchased in accordance with Section 17.2.4, received in accordance with Section 17.2.7, stored in accordance with Section 17.2.13, and released from storage in accordance with Section 17.2.8.

17.2.9.3.2 While in storage, filler metal shall be stored to meet the manufacturer's recommendations. Each heat and lot of filler metal shall be kept segregated from other heats and lots in storage bins or holding ovens.

17.2.9.3.3 The Davis-Besse Maintenance Engineer and the Facility Modification Manager are responsible for the issuance of filler metal within their respective organizations. Filler metal issuance shall be controlled via the use of a Filler Metal Issue Ticket. This ticket shall indicate the heat/lot number of the issued



filler metal. Only one type and heat/lot of electrodes or rod may be issued at any given time. The Filler Metal Issue Ticket shall also be used to document the quantity of filler metal issued and the quantity of unused filler metal or stubs returned.

#### 17.2.9.4 Weld Traveler

- 17.2.9.4.1 The Weld Traveler shall be used to document welding including fitup, welding material, and identification of the welder(s) performing the weld, and the acceptability of inspections and examinations. The Weld Traveler also denotes the WPS to be used, the NDE technique to be performed, and whether postweld heat treatment, pressure testing, or performance of an ASME Section XI preservice examination is required following the repair. Joint details, preheat requirements, and postheat treatment requirements are stipulated on the WPS which is referenced by the Weld Traveler.
- 17.2.9.4.2 Prior to welding, the Weld Traveler is reviewed by the QC Supervisor, the Code Inspection Supervisor (Code and ANSI B31.1 items only), and the ANI (Code items only) for the establishment of hold/witness points. During the review, the QC Supervisor also determines the NDE technique(s)/processes to be performed during or after welding is completed to meet Code and/or specification requirements.
- 17.2.9.4.3 During welding, the blanks under the fabrication requirements column (except those related to NDE) are completed by the Davis-Besse Station or Facility Modification welder, as applicable. Those fabrication requirements related to NDE are completed by the Quality Control Inspector.
- 17.2.9.4.4 Following completion of the Report of Welded Repair or Alteration Form, the Weld Traveler is signed off as completed by the Code Inspection Supervisor.

#### 17.2.9.5 Nondestructive Examination

- 17.2.9.5.1 The QC Supervisor is responsible for ensuring that NDE personnel are qualified by a Level III individual in accordance with procedures which meet the requirements of SNT-TC-1A.
- 17.2.9.5.2 The QC Supervisor is responsible for the development of Toledo Edison NDE procedures to meet the requirements of Sections I, III, V and VIII of the ASME Code. These procedures shall be approved by the QC Supervisor and a Level III in the appropriate NDE method. The NDE procedures shall also be qualified by a Level III in the appropriate NDE method and qualification witnessed by the ANI.
- 17.2.9.5.3 The QC Supervisor is responsible for specifying the appropriate NDE procedure for each repair/modification to meet Code and



specification requirements. The NDE procedure to be utilized is denoted on the Weld Traveler in accordance with Paragraph 17.2.9.4.

- 17.2.9.5.4 The QC Supervisor is responsible for assigning qualified personnel to perform NDE.
- 17.2.9.5.5 NDE Procedures are controlled in accordance with Section 17.2.6.
- 17.2.9.5.6 When it is necessary to use the service of an outside NDE agency, these services shall be obtained through the use of procurement documents as described in Section 17.2.4. The outside NDE Agency's Level III shall be appointed in writing by the Quality Assurance Director to act as a Level III for Toledo Edison. In addition, the outside NDE Agency's personnel qualification and NDE procedures shall be approved by Quality Engineering prior to their use.
- 17.2.9.5.7 The Code Inspection Supervisor is responsible for ensuring preservice examinations are performed to meet the requirements of Section XI of the ASME Code.

#### 17.2.9.6 Heat Treatment

- 17.2.9.6.1 Preheat and postweld heat treatment requirements to include temperatures and holding times shall be denoted on each WPS.
- 17.2.9.6.2 Preheat and postweld heat treatment techniques necessary to ensure compliance with Code requirements shall be described in approved work procedures. These work procedures shall be controlled in accordance with Section 17.2.6.

#### 17.2.9.7 Cleaning

Cleaning shall be performed in accordance with approved work procedures which meet the requirements of ANSI N45.2.1 as endorsed by NRC Regulatory Guide 1.37.

#### 17.2.9.8 Coatings

- 17.2.9.8.1 Coatings shall be applied in accordance with approved work procedures which meet the requirements of ANSI N101.4 as endorsed by NRC Regulatory Guide 1.54.
- 17.2.9.8.2 Coatings shall be applied by applicators who have been qualified in accordance with the requirements of ANSI N101.4 as endorsed by NRC Regulatory Guide 1.54.

#### 17.2.9.9 Other Special Processes Not Described Above

- 17.2.9.9.1 Methods, equipment and personnel connected with special processes shall be qualified in accordance with applicable codes, standards, or specifications. For special processes not covered by existing codes or standards, or where item quality requirements exceed

the requirements of established codes or standards, the necessary qualifications of personnel, procedures, or equipment shall be defined.

- 17.2.9.9.2 Special processes shall be performed in accordance with approved written procedures and be accomplished with written process sheets, checklists, travelers, or equivalent with recorded evidence that the key steps have been satisfactorily accomplished.

#### 17.2.9.10 Authorized Inspection Agency

The ANI, at his option, may witness the qualification of, or require the requalification of, any welding procedure, welder, NDE procedure, or person performing NDE.

#### 17.2.10 Inspection

##### 17.2.10.0 Purpose

This section establishes the requirements for inspections performed to verify conformance to the approved written instructions, procedures, and drawings for accomplishing the activity being inspected.

##### 17.2.10.1 Inspection Personnel

- 17.2.10.1.1 Quality Control personnel are responsible for conducting inspections to ensure that maintenance/modification activities are being and have been satisfactorily accomplished.
- 17.2.10.1.2 Quality Engineering personnel are responsible for conducting receiving inspections as described in Section 17.2.7.
- 17.2.10.1.3 The Quality Control Supervisor/Quality Engineering Supervisor shall ensure that Quality Control/Quality Engineering personnel are qualified through an established documented program in accordance with the requirements of ANSI N45.2.6 as endorsed by NRC Regulatory Guide 1.58. In addition, those QC personnel who conduct nondestructive examinations shall also be qualified to the requirements of SNT-TC-1A.

##### 17.2.10.2 Inspection Procedures

- 17.2.10.2.1 For activities involving modifications to nuclear safety-related/ASME Code items, major maintenance on nuclear safety-related/ASME Code items that require special procedures, and special tests and experiments subject to 10CFR50.59, the Quality Control Supervisor shall provide, when considered necessary, acceptance inspections to assure compliance with controlling documents and the acceptability of the items or work activity. These independent inspections will normally be accomplished through the use of hold or witness points which are established by the QC Supervisor.
- 17.2.10.2.2 The Quality Control Supervisor shall develop inspection plans or procedures which describe the inspection activity. Based on the

extent or complexity of the inspection activity, the inspection plan or procedure shall, as applicable:

- 17.2.10.2.2.1 Clearly establish the quality characteristics of the item or activity to be inspected.
- 17.2.10.2.2.2 Clearly specify the accept/reject criteria.
- 17.2.10.2.2.3 Reference drawings, specifications, procedures, or other documentation and their revision level necessary to perform the inspection. These documents shall be available prior to commencing the inspection.
- 17.2.10.2.2.4 Specify what is to be inspected, how it is to be inspected, and what basis is used in determining whether or not the item passes the inspection.

NOTE Where a sample is used to verify acceptability of a group of items, the sampling procedure shall be based on recognized standard practices and shall provide adequate justification for the sample size and selection process. Sampling may not be utilized for the inspection of Code pressure boundary maintenance/modification activities.

- 17.2.10.2.2.5 Require that, as applicable, inspections be performed with appropriate equipment which is controlled and calibrated in accordance with Section 17.2.12.
- 17.2.10.2.2.6 Document or require the item to be marked to indicate that it has been inspected, and accepted or rejected, as appropriate. The inspection status shall be indicated in accordance with the requirements of Section 17.2.14.
- 17.2.10.2.2.7 Require a written inspection report.

### 17.2.10.3 Inspection Reports

17.2.10.3.1 The Quality Control Supervisor shall ensure that inspection reports contain the following information:

- 17.2.10.3.1.1 A description of the inspection activity performed.
- 17.2.10.3.1.2 The date(s) of the inspection.
- 17.2.10.3.1.3 Any actions initiated or recommended to correct unsatisfactory conditions observed including the issuance of any Nonconformance Reports.
- 17.2.10.3.1.4 The results of the inspection, including the acceptability and/or need for reinspection.
- 17.2.10.3.1.5 Identification of the inspector.

#### 17.2.10.4 Reinspections

The Quality Control Supervisor shall ensure that repaired, reworked, and/or replacement items, obtained or installed after the initial inspection, be inspected in the same or equivalent manner as the original equipment, to ascertain that all the equipment meets the original inspection criteria.

#### 17.2.10.5 In-Process Inspections

Where necessary to verify quality, the Quality Control Supervisor shall utilize direct in-process inspections of work activities. When direct inspection is not possible or advantageous, indirect monitoring of processing methods, equipment, and personnel shall be provided.

#### 17.2.10.6 Hold/Witness Points

- 17.2.10.6.1 The definition of Hold/Witness Points is contained in Section 17.1.
- 17.2.10.6.2 Hold/Witness Points are established in maintenance or modification activities during the Quality Control Supervisor's review of the applicable MWO.
- 17.2.10.6.3 The Davis-Besse Station Superintendent and the Facility Modification Manager are responsible for submitting procedures to Quality Assurance for approval as described in Section 17.2.2. As part of the approval process, the Operations QA Supervisor shall submit these procedures to the Quality Control Supervisor for the establishment of Hold/Witness Points.
- 17.2.10.6.4 The Quality Control Supervisor shall, as required to verify the quality of the activity being performed, establish Hold/Witness Points in activities being inspected.
- 17.2.10.6.5 The Davis-Besse Station Superintendent and the Facility Modification Manager are responsible for notifying Quality Control prior to or upon reaching established Hold/Witness Points.

#### 17.2.10.7 Inspection of Routine Activities

For activities which are routine or repetitive in nature, such as preventive maintenance, minor corrective maintenance, surveillance tests and calibrations, health physics activities, and operations performed by qualified operators, the Quality Control Supervisor shall develop a schedule for inspections which is based on the schedule of performance of the activity.

#### 17.2.11 Test Control

##### 17.2.11.0 Purpose

This section establishes measures to assure that testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is planned and executed.

### 17.2.11.1 Types of Tests

- 17.2.11.1.1 SURVEILLANCE AND PERIODIC TESTS are performed to determine continuing functional readiness and adequacy for those systems and components which are normally in a standby condition or to evaluate whether there has been any degradation of performance, or any departure from the prescribed operating conditions for the systems and components which are normally in service. Surveillance Tests are written to implement the surveillance requirements of the Davis-Besse Unit #1 Technical Specifications. Periodic Tests are written to implement tests which are above and beyond the Technical Specification requirements.
- 17.2.11.1.2 POST-MODIFICATION TESTS are performed to determine whether work has been satisfactorily performed during facility changes.
- 17.2.11.1.3 POST-MAINTENANCE TESTS are performed to determine whether work has been satisfactorily performed during maintenance activities.
- 17.2.11.1.4 MODIFICATION AND MAINTENANCE TESTS are performed during maintenance or modification activities as a portion of the work necessary to satisfactorily carry out that activity. System pressure tests following repairs or modifications by welding are considered to fall within this category.

### 17.2.11.2 Test Procedures

- 17.2.11.2.1 Test Procedures shall, as applicable to the test, contain the following information. The test requirements shall be based on specified requirements contained in applicable Design Documents.
  - 17.2.11.2.1.1 Test objectives.
  - 17.2.11.2.1.2 References.
  - 17.2.11.2.1.3 Required equipment and instrumentation including instructions for their use, if necessary.
  - 17.2.11.2.1.4 Precautions and limitations.
  - 17.2.11.2.1.5 Prerequisites such as:
    - 17.2.11.2.1.5.1 Calibrated instrumentation.
    - 17.2.11.2.1.5.2 Trained personnel.
    - 17.2.11.2.1.5.3 Condition of test equipment and the item to be tested.
    - 17.2.11.2.1.5.4 Environmental conditions.
    - 17.2.11.2.1.5.5 Provisions for data acquisition.
    - 17.2.11.2.1.6 Provisions that the prerequisites have been met.



17.2.11.2.1.7 Detailed steps to be followed in accomplishing the procedure.

17.2.11.2.1.8 Accept/reject criteria.

17.2.11.2.1.9 Provisions for recording test results. The test record shall be completed by the applicable test leader and, as a minimum, contain the following information:

17.2.11.2.1.9.1 Item tested.

17.2.11.2.1.9.2 Date of test.

17.2.11.2.1.9.3 Identification of tester or data recorder.

17.2.11.2.1.9.4 Type of observation.

17.2.11.2.1.9.5 Test results including acceptability.

17.2.11.2.1.9.6 Action to resolve test deficiencies.

#### 17.2.11.3 Surveillance and Periodic Tests

17.2.11.3.1 The Davis-Besse Station Superintendent is responsible for the preparation of surveillance and periodic test procedures and their performance. The test requirements and acceptance criteria shall be developed by the Station Superintendent from engineering documents.

17.2.11.3.2 Surveillance and periodic test procedures are approved as outlined in Section 17.2.2.

17.2.11.3.3 The Davis-Besse Station Superintendent is responsible for evaluating the test results to ensure that test requirements and the acceptance criteria have been met. This evaluation shall be documented.

17.2.11.3.4 Any deviations from the acceptance criteria along with that action to correct the deviation shall be documented on a Test Deficiency List. The Test Deficiency List shall be reviewed by the Davis-Besse Station Superintendent to ensure that deviations from the acceptance criteria have been resolved.

#### 17.2.11.4 Post-Modification Tests

17.2.11.4.1 The Davis-Besse Station Superintendent is responsible for the preparation of post-modification test procedures and their performance when post-modification tests are required by the Facility Change Request Work Package. Post-Modification Test Procedures shall be based on information provided in the test outline contained in the Facility Change Request Work Package. The test outline shall contain the acceptance criteria. Any changes to the test outline shall be approved via a Field Change Notice as described in Section 17.2.3.

- 17.2.11.4.2\* Post-Modification Test Procedures shall be approved as outlined in Section 17.2.2. In addition to Quality Assurance approval, the test procedure shall be reviewed by the Quality Control Supervisor as outlined in Section 17.2.10.
- 17.2.11.4.3 The Davis-Besse Station Superintendent and the Facility Engineering General Supervisor are responsible for reviewing the test results to ensure that the test requirements and the acceptance criteria have been met. This evaluation shall be documented. If the acceptance criteria has been met, the Davis-Besse Station Superintendent's, but not the Facility Engineering General Supervisor's review must be completed prior to declaring the affected system operable.
- 17.2.11.4.4 Any deviations from the acceptance criteria shall be documented on a Test Deficiency and submitted to the Facility Engineering General Supervisor for resolution. The deviation shall be resolved prior to declaring the system operable. The action taken to resolve the deviation shall be documented on the Test Deficiency.

#### 17.2.11.5 Post-Maintenance Tests

- 17.2.11.5.1 The Davis-Besse Station Superintendent is responsible for determining the need for, and the preparation of, Post-Maintenance Test Procedures and their performance. If applicable, Surveillance or Periodic Test Procedures as described in Paragraph 17.2.11.3 may be used in lieu of the Post-Maintenance Test Procedures described in this section. When special post-maintenance testing (beyond that obtained by utilizing Surveillance or Periodic Tests) is required, the test requirements and acceptance criteria shall be developed by the Station Superintendent from engineering documents.
- 17.2.11.5.2 Post-Maintenance Test Procedures shall be approved as outlined in Section 17.2.2. In addition to Quality Assurance approval, the test procedure shall be reviewed by the Quality Control Supervisor as outlined in Section 17.2.10.
- 17.2.11.5.3 The Davis-Besse Station Superintendent is responsible for evaluating the test results to ensure that the test requirements and the acceptance criteria have been met. This evaluation shall be documented. The acceptance criteria shall be met prior to declaring a system operable.
- 17.2.11.5.4 Any deviations from the acceptance criteria along with that action taken to correct the deficiency shall be documented on a Test Deficiency. The Test Deficiency shall be reviewed by the Davis-Besse Station Superintendent and the Facility Engineering General Supervisor. The deviation shall be resolved prior to declaring a system operable. The action taken to resolve the deviation shall be documented on the Test Deficiency.

#### 17.2.11.6 Modification and Maintenance Tests

- 17.2.11.6.1 The Davis-Besse Maintenance Engineer or the Facility Modification Manager, as applicable to the work assignment, is responsible for the preparation of modification and maintenance test procedures and their performance. Where test requirements and the acceptance criteria are not contained in applicable specifications, Codes and standards, this information shall be obtained from the Facility Engineering General Supervisor.
- 17.2.11.6.2 Modification and maintenance test procedures are approved as outlined in Section 17.2.2. Modification and maintenance test procedures require Quality Assurance approval.
- 17.2.11.6.3 The Davis-Besse Maintenance Engineer or the Facility Modification Manager, as applicable to the work assignment, is responsible for evaluating the test results to ensure that the test requirements and the acceptance criteria have been met. This evaluation shall be documented.
- 17.2.11.6.4 Prior to completion of the work activity, any deviations from the acceptance criteria shall be corrected through normal maintenance or construction activities and the action taken to resolve the deficiency shall be documented. Deviations which cannot be corrected shall be resolved via a Nonconformance Report as addressed in Section 17.2.15.

#### 17.2.12 Control of Measuring and Test Equipment

##### 17.2.12.0 Purpose

This section establishes measures which ensure that tools, gauges, instruments, reference standards, nondestructive test equipment, and other measuring and test devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits.

##### 17.2.12.1 Use of Measuring and Test Equipment

- 17.2.12.1.1 The Davis-Besse Station Superintendent or the Facility Modification Manager, as applicable to the work assignment, is responsible for ensuring that the proper range, accuracy, and tolerance of measuring and test equipment to be utilized in the performance of the work assignment is identified in the applicable work procedure.
- 17.2.12.1.2 Measuring and test equipment shall be properly handled and stored to maintain its required accuracy.

##### 17.2.12.2 Calibration and Control

- 17.2.12.2.1 The Davis-Besse Maintenance Engineer, Chemist and Health Physicist, and the Facility Modification Manager are responsible for establishing and implementing a calibration and control program for measuring and test equipment utilized by their personnel. This calibration and control program is not required for rulers,

tape measures, levels, and other such devices for which normal commercial practices provides adequate accuracy. The calibration and control program shall:

- 17.2.12.2.1.1 Describe the calibration technique, calibration frequency, maintenance, control, issuance and storage of measuring and test equipment.
- 17.2.12.2.1.2 Require measuring and test equipment be uniquely identified and have traceability to the calibration test data.
- 17.2.12.2.1.3 Require measuring and test equipment be calibrated and maintained at specified intervals or prior to use based on the required accuracy, purpose, degree of usage, stability characteristics, and other conditions affecting the equipment.
- 17.2.12.2.1.4 Require investigations be conducted and documented when measuring and test equipment is found to be out of calibration to:
  - 17.2.12.2.1.4.1 Determine the validity of previous inspections performed.
  - 17.2.12.2.1.4.2 Determine the acceptability of items inspected or tested since the last calibrated check.
  - 17.2.12.2.1.4.3 Where necessary, establish acceptability of suspect items and repeat original inspections or test using calibrated equipment.
- 17.2.12.2.1.5 Require measuring and test equipment found to be out of calibration be clearly identified as such.
- 17.2.12.2.1.6 Require records be maintained to indicate the complete status of all items under the calibration systems.
- 17.2.12.2.1.7 Require measuring and test equipment be suitably marked to indicate its calibration status.
- 17.2.12.2.1.8 Require reference and transfer standards be traceable to nationally recognized standards; otherwise, the basis for calibration shall be documented.

### 17.2.13 Handling, Storage, and Shipping

#### 17.2.13.0 Purpose

This section establishes measures which ensure that the handling, storage, and shipping of items is controlled to prevent damage or loss and to minimize deterioration.



### 17.2.13.1 Storage

- 17.2.13.1.1 As described in Section 17.2.4, the handling, storage, and shipping level for purchased items is specified in the procurement documents. No change to this specified level may be made without written approval of the Facility Engineering General Supervisor and the Quality Engineering Supervisor.
- 17.2.13.1.2 The Materials Manager is responsible for the storage of items to meet the storage level specified in the procurement documents and the requirements of Paragraph 17.2.13.1.3. At the option of the Materials Manager, the Facility Modification Manager may also be requested to store Level C and D items. Environmental conditions for the storage of Level A, B, C, and D items shall be as required by NRC Regulatory Guide 1.38 and ANSI N45.2.2.
- 17.2.13.1.3 The maintenance of storage areas, storage methods, control of items, and care of items in storage shall be as stipulated in ANSI N45.2.2 as endorsed by NRC Regulatory Guide 1.38. In addition, materials with a specified shelf life shall be controlled to ensure that material with an expired shelf life is not issued. The Operations Quality Assurance Supervisor is responsible for performing periodic inspections to verify these requirements are being complied with.
- 17.2.13.1.4 In the event a fire should occur in the storage area, each item known to have been heated to an ambient temperature of over 150°F or subjected to smoke contamination shall be withheld from installation or use until it has been thoroughly inspected and the item has been verified to be in conformance with specified requirements. The Quality Engineering Supervisor is responsible for performing this inspection.
- 17.2.13.1.5 Only that material that has been accepted in accordance with the requirements of Section 17.2.7 or conditionally released in accordance with Section 17.2.15 may be released for installation from the storage area.
- 17.2.13.1.6 Materials released from storage and placed in their final location or staging areas shall be stored in accordance with the applicable requirements of Paragraphs 6.1, 6.3, and 6.4.2 of ANSI N45.2.2. Where it is not possible or practical to maintain the specified storage level, such as during transportation or installation, an item may be temporarily stored at a lower level. In addition, staging areas should be roped off to segregate them from other plant or fabrication areas. The Davis-Besse Maintenance Engineer and the Facility Modification Manager are responsible for the storage of those materials under their control.

### 17.2.13.2 Handling

- 17.2.13.2.1 The Davis-Besse Maintenance Engineer and the Facility Modification Manager shall prepare detailed special handling procedures



for all items handled by Material Control or their personnel that require special handling instructions because of weight, size, susceptibility to shock damage, high nil-ductility transition temperatures, or any other conditions that warrant special procedures. Items not requiring special handling procedures shall be handled in accordance with sound material handling practices.

- 17.2.13.2.1.1 Special handling instructions or procedures required to be adhered to by Material Control during off-loading or movement in storage shall be noted on the General Material Inspection Checklist by the purchase order requisitioner as described in Section 17.2.4.
- 17.2.13.2.2 Hoisting equipment used to handle items shall meet the requirements of ANSI N45.2.2 as endorsed by NRC Regulatory Guide 1.38.
- 17.2.13.2.3 The Davis-Besse Maintenance Engineer, the Materials Manager, and the Facility Modification Manager shall implement an equipment and rigging inspection program for rigging and hoisting equipment under their control. This program shall meet the requirements of ANSI N45.2.2 as endorsed by NRC Regulatory Guide 1.38.
- 17.2.13.2.4 The Davis-Besse Maintenance Engineer, the Materials Manager, and the Facility Modification Manager shall determine that their personnel engaged in operating material handling equipment are competent and have demonstrated satisfactory ability in operating similar lifting equipment.

### 17.2.13.3 Shipping

- 17.2.13.3.1 The Materials Manager is responsible for the return of materials to suppliers for repair, rework, or test. Procurement documents which authorize the return of materials are prepared in accordance with Section 17.2.4 and identify the required packing and shipping level for the returned material.
- 17.2.13.3.2 The Materials Manager shall ensure that materials being returned are packaged and shipped in accordance with the applicable criteria for the appropriate packaging and shipping level. The packaging and shipping criteria are contained in ANSI N45.2.2 as endorsed by NRC Regulatory Guide 1.38.
- 17.2.13.3.3 The Chemist and Health Physicist shall ensure that all Federal, State, and Local requirements are met for the shipment of Radioactive Materials.

### 17.2.14 Inspection, Test, and Operating Status

#### 17.2.14.0 Purpose

This section establishes measures to indicate by the use of markings, such as stamps, tags, labels, routing cards, or other suitable means, the inspection, test, and operating status of structures, systems, and components.

#### 17.2.14.1 Operating System Status

17.2.14.1.1 The Davis-Besse Station Superintendent is responsible for establishing and maintaining a program in which the operating, inspection, and test status of structures, systems, and components is known at all times. This program shall meet the requirements of ANSI N18.7 as endorsed by NRC Regulatory Guide 1.33 and contain the following provisions.

- 17.2.14.1.1.1 Permission to release equipment or systems for maintenance or test is granted by the Shift Supervisor. Prior to granting permission, the Shift Supervisor shall verify that the equipment or system can be released, and determine how long it may be out of service. Granting of such permission shall be documented. Attention shall be given to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance.
- 17.2.14.1.1.2 Control of equipment, as necessary, to maintain personnel and reactor safety and to avoid unauthorized operation of equipment. Procedures shall require control measures such as locking or tagging to secure and identify equipment in a controlled status. Procedures shall also require independent verifications, where appropriate, to ensure that necessary measures, such as tagging equipment, have been implemented correctly.
- 17.2.14.1.1.3 Temporary modifications, such as temporary bypass lines, electrical jumpers, lifted electrical leads, and temporary trip setpoints, are controlled by approved procedures which include a requirement for independent verification. A log shall be maintained of the current status of such temporary modifications.
- 17.2.14.1.1.4 Equipment considered to be inoperable is identified through tags, logs, or other suitable indicators.
- 17.2.14.1.1.5 Status indicators such as tags, markings, labels, and log entries are placed and removed only by authorized personnel.
- 17.2.14.1.1.6 Maintenance and modification activities have been satisfactorily completed prior to returning the affected system to service.
- 17.2.14.1.1.7 When equipment is ready to be returned to service, operating personnel place the equipment in operation and verify and document its functional acceptability.

#### 17.2.14.2 Inspection Status

17.2.14.2.1 The Quality Control Supervisor is responsible for establishing a program in which the inspection and examination status of

systems undergoing maintenance or modification is known at all times. This program shall contain the following provisions.

- 17.2.14.2.1.1 Welding stamps which indicate the acceptability of electrical support weldments are controlled and utilized only by authorized personnel.
- 17.2.14.2.1.2 Weld inspection and nondestructive examination results for all other items are documented on the Weld Traveler.
- 17.2.14.2.1.3 Inspections performed during modifications are documented to ensure all required field work has been satisfactorily accomplished prior to authorizing the return of equipment to service.
- 17.2.14.2.1.4 Inspections required during maintenance are satisfactorily completed prior to authorizing the return of equipment to service.
- 17.2.14.2.2 The identification of nonconforming items is addressed in Section 17.2.15.
- 17.2.14.2.3 The identification of the acceptance status of purchased materials is addressed in Section 17.2.7.

#### 17.2.14.3 Markings

- 17.2.14.3.1 When physical markings are used during maintenance or modification activities, or to indicate the inspection, test, or operating status, they shall meet the following requirements:
  - 17.2.14.3.1.1 When metal stamps are used to mark the item properly, they shall be of a low stress rounded-nose type.
  - 17.2.14.3.1.2 When vibrating marking tools are used to mark the item properly, they shall be fitted with a carbide marking tip or equivalent and shall be designed to provide a rounded impression not to exceed 0.010 inches in depth.
  - 17.2.14.3.1.3 Etchings shall not be used on nickel alloys or on weld areas or on sensitized areas of stainless steel.
  - 17.2.14.3.1.4 Electric arc marking pencils shall not be used.
  - 17.2.14.3.1.5 The marking shall not be deleterious to the material.
- 17.2.14.3.2 When tags are employed, they shall be of a material which will retain the marking, withstand weathering deterioration and other normal handling effects, and shall not be detrimental to the item.

#### 17.2.14.4 Performance of Inspection, Test, and Operating Activities

The Davis-Besse Maintenance Engineer, Technical Engineer, Operations Engineer, Chemist and Health Physicist, and the Facility Modification Manager shall ensure that maintenance, modification, or operating activities under their cognizance are conducted in accordance with the sequences established in the applicable procedures or Maintenance Work Orders. When it is necessary to alter the sequence of required tests, inspections, or operations, the appropriate procedures/MWO shall be revised in accordance with the requirements of Section 17.2.2.

#### 17.2.15 Nonconforming Materials or Items

##### 17.2.15.0 Purpose

This section establishes measures to control materials or items which do not conform to requirements in order to correct the nonconformance(s) and to prevent their inadvertent use or installation until correction is accomplished.

##### 17.2.15.1 Nonconformance Identification

- 17.2.15.1.1 Nonconformances discovered during the receipt inspection process are documented on a Supplier Deviation Report (SDR).
- 17.2.15.1.2 The SDR is approved by the Quality Engineering Supervisor prior to issuance. He is further responsible for maintaining a log of SDRs.
- 17.2.15.1.3 Nonconformances which cannot be returned to their original condition within the parameters of the applicable work procedures discovered during installation or surveillance activities or items conditionally released are documented on a Nonconformance Report (NCR). The NCR is approved by either the Quality Control Supervisor or the Quality Engineering Supervisor prior to issuance. The Quality Control Supervisor is responsible for maintaining a log of NCRs.
- 17.2.15.1.4 Nonconformances discovered by suppliers during the manufacturing of materials or items and which are dispositioned "use-as-is" or "repair" by the supplier in accordance with his QA program are reported to Toledo Edison through either the Supplier Deviation Disposition Request (SDDR) or the supplier's approved nonconformance report form. The supplier's disposition is approved by either the Facility Engineering General Supervisor or Toledo Edison's agent in accordance with the requirements of Paragraph 17.2.15.2.2.
- 17.2.15.1.5 Hold Tags shall be attached to nonconforming equipment that has been evaluated as not operable, and to nonconforming material found deficient during the receipt inspection process. Hold Tags need not be attached to nonconforming equipment located in contaminated or high radiation areas. Whenever practical, the nonconforming item shall also be segregated from acceptable items. Segregation is not considered practical if the item is



physically too large to handle, permanently installed, or involves hazardous material requiring special handling or storage conditions.

- 17.2.15.1.6 NCRs, SDRs, and SDDRs shall be forwarded to the organization responsible for dispositioning the nonconformances as well as other organizations which might be affected by the nonconformance.

#### 17.2.15.2 Nonconformance Evaluation

- 17.2.15.2.1 Nonconformances are dispositioned as either use-as-is, use-as-is temporarily, repair, rework, or reject by the division director or manager assigned responsibility for resolving the nonconformance. As part of the dispositioning process, the division director or manager shall also determine if the nonconformance affects the operability of installed equipment and assign the area responsible for implementing the disposition.
- 17.2.15.2.2 Nonconformances dispositioned as either use-as-is, use-as-is temporarily or repair shall be approved by the Facility Engineering General Supervisor or Toledo Edison's agent (SDDR only). As part of this approval, the Facility Engineering General Supervisor/agent shall ensure that the necessary design reviews and engineering evaluations as required by Section 17.2.3 are carried out. The Facility Engineering General Supervisor/agent evaluation of the nonconforming condition shall include an assessment to ensure that the item will meet the functional requirements, including performance, safety, reliability, and maintainability. The engineering evaluation shall be documented, traceable to the NCR, SDR, or SDDR and be noted on or attached to it.

#### 17.2.15.3 Nonconformance Resolution

- 17.2.15.3.1 For NCRs dispositioned as repair or rework, a MWO shall be issued to implement the disposition. Upon implementation of the disposition, the acceptability of reworked or repaired items shall be made by Quality Engineering or Quality Control personnel. The acceptability shall be determined by inspecting the item by methods which are at least equivalent to the original inspection. The area of inspection may be confined to the area of the nonconformance.
- 17.2.15.3.2 When the nonconforming condition has been satisfactorily resolved, Quality Control or Quality Engineering personnel will close the NCR or SDR and remove any Hold Tags.
- 17.2.15.3.3 Systems which contain nonconforming material or items and which have been declared inoperable due to the nonconforming condition may not be declared operable until suitable documentary evidence is available to show the equipment or material is in conformance with specified requirements or until a safety evaluation which evaluates the nonconforming condition has been completed.



#### 17.2.15.4 Conditional Release

- 17.2.15.4.1 Nonconforming items may be conditionally released from storage for installation provided identification, traceability, and retrievability are maintained and the nonconformance can be dispositioned after installation.
  - 17.2.15.4.1.1 Retrievability is considered to be maintained if the item can be removed or corrected at a later date without damage or contamination to the associated permanent plant equipment or structures.
  - 17.2.15.4.1.2 Nonconforming consumables which can be assured to meet engineering specifications, and which are retrievable per Paragraph 17.2.15.4.1.1 may be released. Consumables which do not meet these conditions may not be conditionally released.
- 17.2.15.4.2 Items not meeting the criteria of Paragraph 17.2.15.4.1 may be released for fitup/placement purposes only. If necessary, consumables may be used in the fitup/placement.
- 17.2.15.4.3 Prior to granting a conditional release, a statement documenting the technical justification for the conditional release shall be prepared and submitted to the Quality Control Supervisor or Quality Engineering Supervisor. The Quality Control Supervisor or Quality Engineering Supervisor shall review the request to ensure the criteria of Paragraph 17.2.15.4.1 are met. If so, he may grant a conditional release. Items conditionally released shall be identified, when feasible, with a Conditional Release Tag.
- 17.2.15.4.4 Items conditionally released due to the lack of quality documentation may be placed into operation provided that Facility Engineering performs an evaluation to ensure that the item will satisfactorily perform its intended safety function.

#### 17.2.15.5 Nonconformance Review

- 17.2.15.5.1 Nonconformances shall be reviewed by the Quality Assurance Director to determine if the nonconforming condition may require reporting in accordance with the provisions of 10CFR21. Conditions which may require reporting shall be processed in accordance with the requirements of Paragraph 17.2.15.7.
- 17.2.15.5.2 The Quality Assurance Director shall also trend SDRs and NCRs in order to detect any declining trends in quality. If declining trends in quality are noted, the provisions of Section 17.2.16 should be invoked.

#### 17.2.15.6 Authorized Inspection Agency Review

The action taken to resolve NCRs and SDRs issued against ASME Code Components shall be accepted by the Authorized Nuclear Inspector prior to final closeout of the NCR or SDR.

#### 17.2.15.7 10CFR21 Reports

- 17.2.15.7.1 Items reported to Toledo Edison as a 10CFR21 or a potential 10CFR21 shall be referred to the Quality Engineering Supervisor. As applicable to the location of the item (in storage or installed), the Quality Engineering Supervisor shall issue a SDR or NCR to Nuclear Facility Engineering for evaluation of the condition in accordance with the provisions of Paragraph 17.2.15.2 and 10CFR21.
- 17.2.15.7.2 Items considered to be reportable in accordance with the provisions of 10CFR21 shall be reported via a Licensee Event Report or a letter meeting the requirements of 10CFR21.

#### 17.2.16 Corrective Action

##### 17.2.16.0 Purpose

This section establishes measures which ensure that conditions adverse to quality are identified, evaluated, reported, documented, and corrected. For conditions considered to be significant, the cause is determined and corrective action taken to preclude repetition.

##### 17.2.16.1 Identification of Conditions Adverse to Quality

- 17.2.16.1.1 Conditions adverse to quality such as equipment failure, malfunctions, or deficiencies, procedure violations, and Technical Specification violations identified by Station personnel are identified on a Deviation Report. The Deviation Report is controlled by the Davis-Besse Station Superintendent and contains the following information:
  - 17.2.16.1.1.1 Date discovered.
  - 17.2.16.1.1.2 A description of the condition adverse to quality.
  - 17.2.16.1.1.3 A description of what caused the condition adverse to quality to occur.
  - 17.2.16.1.1.4 A description of the initial action taken to control the condition adverse to quality.
  - 17.2.16.1.1.5 A determination whether the condition adverse to quality is reportable to the NRC in accordance with the Operating License. If reporting is required, the Deviation Report shall document the report, as well as any required follow-up action.

17.2.16.1.1.6 Corrective action taken to correct and preclude repetition of the condition adverse to quality.

17.2.16.1.2 Components, parts, or materials determined not to be in compliance with applicable codes, standards, drawings, specifications, or procurement documents are considered nonconformances. Nonconformances are processed as described in Section 17.2.15.

17.2.16.1.3 Procedural violations discovered during quality assurance audit and surveillance activities are documented on Audit Finding Reports. Audit Finding Reports are discussed in Section 17.2.18.

17.2.16.2 Significant Conditions Adverse to Quality

17.2.16.2.1 The Quality Assurance Director shall review Deviation Reports, Nonconformance Reports, Supplier Deviation Reports, and Audit Finding Reports to determine if a significant condition adverse to quality exists. If it is determined that a significant condition adverse to quality exists and that adequate corrective action to prevent recurrence is not planned, the Quality Assurance Director should issue a Corrective Action Request to upper management of the affected organization. The Corrective Action Request shall:

17.2.16.2.1.1 Describe the condition including its cause.

17.2.16.2.1.2 Stipulate the corrective action required to correct the adverse condition and prevent its recurrence with the requirement that the action be promptly initiated. If the corrective action is not completed within 30 days, its status shall be reported to the Quality Assurance Director every 30 days until its completion.

17.2.16.2.1.3 Document that the corrective action required in Paragraph 17.2.16.2.1.2 above has been accomplished.

17.2.16.2.2 When the corrective action required by the Corrective Action Request has been completed, Quality Assurance shall perform a follow-up review or audit to verify the effectiveness of the corrective action and provide closeout of the corrective action documentation.

17.2.16.2.3 Conditions adverse to quality are normally considered significant when any of the following exists:

17.2.16.2.3.1 The condition indicates a declining trend in quality.

17.2.16.2.3.2 The condition is repetitive indicating current controlling measures are inadequate or insufficient.

17.2.16.2.3.3 Evaluation indicates that the condition is a result of a program deficiency.

17.2.16.2.3.4 The condition indicates failures to obtain required approvals for changes in procedures or documents.

- 17.2.16.2.3.5 Failure to resolve a deficiency in a timely manner.
- 17.2.16.2.3.6 The condition indicates negligence or disregard of document or procedural requirements.
- 17.2.16.2.3.7 QA follow-up review of conditions adverse to quality shows that the approved corrective action has not been taken, or has been improperly or incompletely accomplished.

#### 17.2.17 Quality Records

##### 17.2.17.0 Purpose

This section establishes measures which ensure that quality records are properly collected, stored, and maintained.

##### 17.2.17.1 Record Retention

- 17.2.17.1.1 Records requiring retention shall be those specified in the applicable design specifications, procurement documents, procedures or Davis-Besse Unit #1 Technical Specifications, Section 6.10. Records included in these documents include the following:
  - 17.2.17.1.1.1 Code Data Reports.
  - 17.2.17.1.1.2 As-Built Drawings.
  - 17.2.17.1.1.3 Certified Material Test Reports.
  - 17.2.17.1.1.4 Listing of Materials used. (Material Issue Tickets)
  - 17.2.17.1.1.5 Nondestructive Examination Reports including radiographic film.
  - 17.2.17.1.1.6 Heat Treatment Records.
  - 17.2.17.1.1.7 NR-1/R-1 Forms.
  - 17.2.17.1.1.8 Records required by IWA-6000 of ASME Section XI.
- 17.2.17.1.2 Records noted in Paragraph 17.2.17.1.1 are considered permanent lifetime records.

##### 17.2.17.2 Record Generation

- 17.2.17.2.1 The applicable Design specifications, procurement documents, test procedures, work procedures, operating procedures, etc. specify the records to be generated. Following record generation, Division Directors shall ensure that:
  - 17.2.17.2.1.1 Records are reviewed to ensure they are legible, adequately filled out and identifiable to the item, items, or activity involved.

17.2.17.2.1.2 Records are stamped, initialed, signed or otherwise authenticated, identified, indexed, and dated by authorized personnel.

17.2.17.2.2 Upon completion of the review described above, the Division Directors shall ensure that records are forwarded to Information and Records Management for storage.

### 17.2.17.3 Records Storage

The Records Services Supervisor is responsible for the receipt, storage, preservation, safekeeping, and retrieval of records in accordance with the provisions of NRC Regulatory Guide 1.88 and ANSI N45.2.9.

### 17.2.18 Audits

#### 17.2.18.0 Purpose

This section establishes measures which ensure that a comprehensive system of planned periodic audits to verify compliance with QA program requirements and to determine QA program effectiveness is conducted.

#### 17.2.18.1 Responsibility

- 17.2.18.1.1 The Quality Engineering Supervisor is responsible for conducting audits of agents and off-site suppliers/contractors.
- 17.2.18.1.2 The Operations Quality Assurance Supervisor is responsible for conducting audits of Toledo Edison organizations and site contractors.

#### 17.2.18.2 Audit Schedule

- 17.2.18.2.1 The Operations Quality Assurance Supervisor and the Quality Engineering Supervisor are responsible for developing audit schedules for their areas of responsibility. These audit schedules shall meet the requirements of ANSI N45.2.12 as endorsed by NRC Regulatory Guide 1.144. In addition, Suppliers/Contractors who perform Code activities but do not hold the appropriate Quality System Certificate or Certificate of Authorization shall be audited annually.
- 17.2.18.2.2 Organizations audited shall be those performing nuclear safety related activities and Code activities who implement portions of this manual. Activities audited shall be those listed in Section 6 of the Davis-Besse Unit #1 Technical Specifications and all other quality-related activities where the requirements of Appendix B to 10CFR50 and the Code are applicable.
- 17.2.18.2.3 As part of the scheduling process, Audit Team Leaders for the scheduled audits shall be specified.



- 17.2.18.2.4 At the option of the Operations QA Supervisor or the Quality Engineering Supervisor, unannounced audits or surveillance activities may be utilized to supplement the scheduled audits.

#### 17.2.18.3 Qualification and Assignment of Auditing Personnel

- 17.2.18.3.1 Auditors and Audit Team Leaders shall be qualified in accordance with the requirements of ANSI N45.2.23 as endorsed by NRC Regulatory Guide 1.146.

- 17.2.18.3.2 Audit personnel shall not have direct responsibility in the function being audited.

#### 17.2.8.4 Audit Preparation

- 17.2.18.4.1 Audit preparation activities shall be in accordance with the requirements of ANSI N45.2.12 as endorsed by NRC Regulatory Guide 1.144. These activities include the following:

- 17.2.18.4.1.1 Development of the Audit Plan.
- 17.2.18.4.1.2 Audit Team Selection.
- 17.2.18.4.1.3 Audit Team Orientation.
- 17.2.18.4.1.4 Audit Notification - This activity is not performed during unannounced audits.

#### 17.2.18.5 Audit Performance

- 17.2.18.5.1 Audit performance activities shall be in accordance with the requirements of ANSI N45.2.12 as endorsed by NRC Regulatory Guide 1.144. These activities include the conduct of the pre-audit conference, conduct of the audit, and conduct of the post-audit conference. Audit Checklists shall be used to ensure the depth and continuity of the audit.

- 17.2.18.5.1.1 Audits include an objective evaluation of quality-related practices, procedures, and instructions for compliance with applicable regulatory requirements and the requirements of this manual; that activities meet the requirements of the quality-related practices, procedures, and instructions, and that records reflect that the QA program and its implementing procedures are effective and are being properly implemented.

- 17.2.18.5.2 Deficiencies discovered during the audit process are documented on an Audit Finding Report and issued with the audit report.

#### 17.2.18.6 Audit Reports

- 17.2.18.6.1 Upon completion of the audit, an audit report shall be issued within 30 days of the post-audit conference. This audit report shall be signed by the Audit Team Leader and approved by the

Quality Assurance Director. The audit report is distributed to management of the audited organization, the Toledo Edison President, the Vice President, Nuclear, and Company Nuclear Review Board Members. The audit report shall meet the requirements of ANSI N45.2.12 as endorsed by NRC Regulatory Guide 1.144.

17.2.18.7 Audit Follow-up

- 17.2.18.7.1 The audit report shall instruct management of the audited organization to review and investigate audit findings to determine and schedule appropriate corrective action, including action to prevent recurrence as applicable.
- 17.2.18.7.2 The audited organization shall respond to each audit finding giving results of the review and investigation. In no instance is this response time to be greater than thirty days from the date of receipt of the audit report by the audited organization. The response shall clearly state the corrective action taken to prevent recurrence. In the event that corrective action cannot be completed within thirty days, the audited organization's response shall include a scheduled date for completion of the corrective action. If the corrective action cannot be completed by the scheduled date, the audited organization shall notify the auditing organization of the status of the corrective action and provide a new scheduled date for completion of the corrective action. When corrective action is complete, the audited organization shall provide a follow-up notification stating the corrective action taken and the date the corrective action was completed.
- 17.2.18.7.3 The Operations Quality Assurance Supervisor and the Quality Engineering Supervisor are responsible for obtaining a written response to each audit finding from the audited organization. This written response shall be evaluated for adequacy and assurance that the corrective action has been identified and scheduled. Upon notification that corrective action has been completed, re-audit or other appropriate means shall be used to confirm that the corrective action has been satisfactorily accomplished.

Table 17.2-1

Applicable NRC Regulatory Guides, ANSI Standards and Industry Codes

<u>NRC REGULATORY GUIDE, ANSI STANDARD OR INDUSTRY CODE</u>	<u>TOLEDO EDISON POSITION</u>
1. Regulatory Guide 1.8, Rev. 1-R, "Personnel Selection and Training" (September 1975).	Toledo Edison complies with the regulatory position of this guide as modified by the Davis-Besse Unit #1 Technical Specifications.
2. Regulatory Guide 1.28, Rev. 2, "Quality Assurance Program Requirements (Design and Construction)" (February 1979).	Toledo Edison complies with the regulatory position of this guide with the following clarification:  1. A Vendor's ASME Code Quality Assurance program may be extended to cover non-pressure boundary components which perform safety-related functions provided that the Code program is evaluated to determine that it contains the necessary requirements to ensure the quality of the non-pressure boundary components. This is in lieu of invoking the requirements of ANSI N45.2 on the Vendor.
3. Regulatory Guide 1.30 (Safety Guide 30), "Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment" (August 11, 1972).	Toledo Edison complies with the regulatory position of this guide with clarification to ANSI N45.2.4.
4. Regulatory Guide 1.33 (Safety Guide 33), "Quality Assurance Program Requirements (Operation)" (November 3, 1972).	Toledo Edison complies with the regulatory position of this guide with the following clarification:  1. ANSI N45.2-1977 will be implemented in lieu of ANSI N45.2-1971.
5. Regulatory Guide 1.37, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants" (3-16-73).	Toledo Edison complies with the regulatory position of this guide with clarifications to ANSI N45.2.1 and with the following clarifications:

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry Codes

<u>NRC REGULATORY GUIDE, ANSI STANDARD OR INDUSTRY CODE</u>	<u>TOLEDO EDISON POSITION</u>
5. Regulatory Guide 1.37 (Continued)	<ol style="list-style-type: none"> <li>1. Regulatory Position C.3 requires that the water quality for final flushes of fluid systems and associated components be at least equivalent to the quality required for normal operation. This requirement is not applied to dissolved oxygen or nitrogen limits nor does it infer that chromates or other additives normally in the system water will be added to the flush water.</li> <li>2. Regulatory Position C.4 requires that chemical components that could contribute to intergranular cracking or stress corrosion cracking should not be used with austenitic stainless steel and nickel-based alloys. It is Toledo Edison's position that material such as inks, temperature indicating crayons, labels, wrapping materials (other than polyethylene), water soluble materials, desiccants, lubricants, and NDE penetrant materials and couplants, which contact stainless steel or nickel-based alloy material surfaces contain no more than trace elements of lead, zinc, copper, mercury or other low melting alloys or compounds. Maximum allowable levels of water leachable chloride ions, total halogens and sulfur compounds will be defined and imposed on the aforementioned materials.</li> </ol>
6. Regulatory Guide 1.38, Rev. 2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water-Cooled Nuclear Power Plants" (May 1977).	Toledo Edison complies with the regulatory position of this guide with clarifications to ANSI N45.2.2.
7. Regulatory Guide 1.39, Rev. 2, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants" (September 1977).	Toledo Edison complies with the regulatory position of this guide with clarifications to ANSI N45.2.3.



Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

8. Regulatory Guide 1.54, "Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants" (June 1973).

Toledo Edison complies with the regulatory position of this guide with the following clarifications:

1. This regulatory guide and its associated ANSI Standard implies that a significant amount of coating work is required at the plant site. Although this is correct for construction sites, the coating work at an operating site generally consists of repair and touchup work following maintenance and repair activities or the initial coating of components such as hangers, supports, and piping during facility modifications. Therefore in lieu of the full requirements of Regulatory Guide 1.54 and ANSI N101.4, Toledo Edison will impose the following Quality Assurance requirements on coating activities:
  - a. The quality assurance requirements of Section 3 of ANSI N101.4 applicable to the coating manufacturer will be imposed on the coating manufacturer through the procurement process.
  - b. Coating application procedures will be developed based on the manufacturer's recommendations for application of the selected coating systems.
  - c. Coating applicators will be qualified to demonstrate their ability to satisfactorily apply the coatings in accordance with the manufacturer's recommendations.
  - d. Quality Control personnel will perform inspections to verify conformance of the coating application with the coating application procedures. Section 6 of ANSI N101.4 will be used as guidelines in the establishment of the inspection program.
  - e. Quality Control inspection personnel will be qualified to the requirements of Regulatory Guide 1.58, Rev. 1.



Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry Codes

<u>NRC REGULATORY GUIDE, ANSI STANDARD OR INDUSTRY CODE</u>	<u>TOLEDO EDISON POSITION</u>
8. Regulatory Guide 1.54 (Continued)	<p>f. Documentation demonstrating conformance to (a) through (e) above will be maintained by Toledo Edison.</p> <p>2. The requirements of Regulatory Guide 1.54 apply to surfaces within containment with the following exceptions:</p> <ul style="list-style-type: none"> <li>a. Surfaces to be insulated.</li> <li>b. Surfaces "contained" within a cabinet or enclosure.</li> <li>c. Repair/touchup areas less than 30 square inches of surface area such as: <ul style="list-style-type: none"> <li>. Cut ends</li> <li>. Bolt heads, nuts and miscellaneous fasteners</li> <li>. Damage resulting from spot, tack, or arc welding.</li> </ul> </li> <li>d. Small items such as small motors, handwheels, electrical cabinets, control panels, loudspeakers, motor operators, etc. where special painting requirements would be impracticable.</li> <li>e. Stainless steel or galvanized surfaces.</li> <li>f. Banding used for insulating pipe.</li> </ul>
9. Regulatory Guide 1.58, Rev. 1, "Qualification of Nuclear Plant Inspection, Examination, and Testing Personnel" (September 1980).	<p>Toledo Edison complies with the regulatory position of this guide with the following clarification:</p> <ul style="list-style-type: none"> <li>1. This regulatory guide applies only to quality control personnel performing quality verification activities.</li> </ul>
10. Regulatory Guide 1.64, Rev. 2, "Quality Assurance Requirements for the Design of Nuclear Power Plants" (June 1976).	<p>Toledo Edison complies with the regulatory position of this guide with the following clarification:</p>

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

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| <p>10. Regulatory Guide 1.64 (Continued)</p>   | <p>1. Regulatory Position, Section C-2 (1), addresses the use of a supervisor in design verification. If, in an exceptional circumstance, the originators' immediate supervisor is the only technically qualified individual available, the design verification or checking will be conducted by the supervisor with the following provisions:</p> <ul style="list-style-type: none"> <li>a. The other requirements of Regulatory Guide 1.64, Position C-2, will be met.</li> <li>b. The justification will be individually documented and approved by the next level of supervision.</li> <li>c. Quality Assurance audits will include review of frequency and effectiveness of the use of the immediate supervisor to assure that this provision is used only in exceptional circumstances.</li> </ul> |
| <p>11. Regulatory Guide 1.74, "Quality Assurance Terms and Definitions" (February 1974).</p>   | <p>Toledo Edison complies with the regulatory position of this guide with clarification to ANSI N45.2.10.</p>  |
| <p>12. Regulatory Guide 1.88, Rev. 2, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records" (October 1976).</p>  | <p>Toledo Edison complies with the regulatory position of this guide with clarification to ANSI N45.2.9.</p>   |
| <p>13. Regulatory Guide 1.94, Rev. 1, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants" (April 1976).</p> | <p>Toledo Edison complies with the regulatory position of this guide with clarifications to ANSI N45.2.5.</p>  |

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry Codes

<u>NRC REGULATORY GUIDE, ANSI STANDARD OR INDUSTRY CODE</u>	<u>TOLEDO EDISON POSITION</u>
14. Regulatory Guide 1.116, Rev. 0-R, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems" (May 1977).	Toledo Edison complies with the regulatory position of this guide with clarifications to ANSI N45.2.8.
15. Regulatory Guide 1.123, Rev. 1, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants" (July 1977).	Toledo Edison complies with the regulatory position of this guide with the following clarification and with clarifications to ANSI N45.2.13:  1. Regulatory Position C.4 requires that the procurement documents specify the method of acceptance of an item or service. In lieu of this requirement, procurement documents will not detail the method of acceptance. However, this information will be available to receipt inspection personnel.
16. Regulatory Guide 1.144, Rev. 1, "Auditing of Quality Assurance Program for Nuclear Power Plants" (September 1980).	Toledo Edison complies with the regulatory position of this guide with clarifications to ANSI N45.2.12.
17. Regulatory Guide 1.146, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants" (August 1980).	Toledo Edison complies with the regulatory position of this guide.
18. ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel".	Toledo Edison complies with the requirements of this standard with clarifications to Regulatory Guide 1.8.
19. ANSI N18.7-1972, "Administrative Controls for Nuclear Power Plants".	Toledo Edison complies with the requirements of this standard.

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDES, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

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

Toledo Edison complies with the requirements of this standard with clarifications to Regulatory Guide 1.28.

21. ANSI N45.2.1-1973, "Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants".

Toledo Edison complies with the requirements of this standard with clarifications to Regulatory Guide 1.37 and with the following clarifications:

1. Many aspects of ANSI N45.2.1 are not applicable to the operations phase except on rare occasions. Therefore, Toledo Edison does not intend to develop procedures for all aspects of this standard. Appropriate procedures will be developed as the need arises.
2. During maintenance and modification activities, Toledo Edison will control the opening of clean systems and will conduct inspections to verify that affected system cleanliness levels will not be adversely affected by the maintenance or modification activity. When system cleanliness is affected, specific cleaning procedures which incorporate the applicable portions of ANSI N45.2.1 will be developed and implemented to maintain overall system cleanliness.
3. Section 2.4 of ANSI N45.2.1 requires that personnel who perform inspection, examination, or testing activities required by ANSI N45.2.1 be qualified in accordance with ANSI N45.2.6. In lieu of this, personnel who perform cleanliness inspections will be qualified in accordance with Regulatory Guide 1.8.

Table 17.1-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

## 21. ANSI N45.2.1-1973 (Continued)

4. Section 3.1.2.1 of ANSI N45.2.1 states that surfaces shall be examined without magnification under a lighting level (background plus supplementary lighting) of at least 100 foot candles. It is Toledo Edison's practice that the lighting level necessary for determining "metal clean" of accessible surfaces of piping and components is determined by the inspector. Typically, a standard two-cell flashlight supplemented by other lighting as the inspector deems necessary is used.
5. Section 4 of ANSI N45.2.1 states that: "Items should not be delivered to the point of installation site sooner than necessary unless the installed location is considered a better storage area." As an alternate to this requirement, items may be delivered to the installation site sooner than absolutely necessary when determined to be advantageous for other considerations, for example, reduced handling or easier access, thereby reducing susceptibility to handling damage.

## 22. ANSI N45.2.2-1972, "Packaging, Shipping, Receiving, Storage and Handling of Items for Nuclear Power Plants (During the Construction Phase)".

Toledo Edison complies with the requirements of this standard with the following clarifications:

1. Section 2.7 of ANSI N45.2.2 establishes requirements for the classification of items. The four-level classification system will be used. However, classifications differing from those established using Section 2.7 of ANSI N45.2.2 will be considered acceptable provided no degradation of the item is assured; for example, electric motors designed for outside service may be stored in a level C area rather than a level B area.



Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry Codes

NRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODE

TOLEDO EDISON POSITION

22. ANSI N45.2.2-1972 (Continued)

2. Section 3 and Section 4 of ANSI N45.2.2 specify a four-level classification system for the packaging and shipping of items. In lieu of these requirements, commercial grade items will be packaged and shipped in accordance with standard commercial practices.
3. Section 5.2.1 of ANSI N45.2.2 requires that a preliminary visual inspection or examination for shipping damage be performed prior to unloading. Spare/replacement items are generally small in physical size and normally not shipped in dedicated vehicles. Consequently, it is impractical to perform shipping damage inspection prior to unloading. In lieu of this requirement, Toledo Edison will inspect incoming materials for shipping damage during unloading and unpackaging.
4. Section 5.5 of ANSI N45.2.2 provides for "rework" and "use-as-is" dispositions for nonconforming items. As an alternate, the "repair" disposition (as defined in ANSI N45.2.10-1973) will also be used.
5. Section 6.2.4 of ANSI N45.2.2 prohibits the storage of food and associated items within storage areas. Controlled areas, within storage areas, will be established for the storage of food, drink, and salt tablets. These areas will be controlled through normal supervision and inspection.

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

## 22. ANSI N45.2.2-1972 (Continued)

6. Section 6.5 of ANSI N45.2.2 requires that items released from storage and placed in their final locations within the power plant be inspected and cared for in accordance with the requirements of Section 6 of this standard and other applicable standards. In lieu of this requirement, Toledo Edison will, whenever feasible, store items within their appropriate storage area and move the equipment to the plant area for staging only in sufficient time to support its installation. Within the plant, the equipment will be staged at locations which provide equivalent environmental conditions under which it is designed to operate. Item identification and acceptance status will be maintained within these staging areas.
7. Various sections of ANSI N45.2.2 address the use of non-halogenated materials when in contact with austenitic stainless steels or nickel-based alloys. The clarifications applicable to Regulatory Guide 1.37 regarding this subject also apply to ANSI N45.2.2.
8. The last sentence of A.3.4.1(4) and (5) of ANSI N45.2.2 should be corrected as follows:
 

(4) "However, preservatives for inaccessible inside surfaces of pumps, valves and pipe systems containing reactor coolant water shall be the water flushable type."

(5) "The name of the preservative used shall be indicated to facilitate touch up."

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

22. ANSI N45.2.2-1972 (Continued)

9. Section A.3.4.2 of ANSI N45.2.2 addresses Inert Gas Blankets. There may be cases involving large or complex shapes for which an inert or dry air purge flow is provided rather than static gas blanket in order to provide adequate protection due to difficulty of providing a leak-proof barrier. In these cases, a positive pressure purge flow may be utilized as an alternative to leak-proof barrier.
10. Section A.3.5.2 of ANSI N45.2.2 requires that tapes be brightly colored. In lieu of this requirement, tapes will be of a contrasting color rather than "Brightly Colored" as required by A.3.5.1(3).
11. Section 9 of ANSI N45.2.2 lists several applicable standards. Of these standards, only those referenced by the Davis-Besse Updated Safety Analysis Report will be considered applicable.

23. ANSI N45.2.3-1973, "Housekeeping During the Construction Phase of Nuclear Power Plants".

Toledo Edison complies with the requirements of this standard with the following clarifications:

1. Section 2.1 of ANSI N45.2.3 establishes requirements for five zone levels. Alternative equivalent zone designations and requirements may be utilized to cover those situations not included in the subject standards; for example, situations in which shoe covers and/or coveralls are required but material accountability is not.
2. Section 9 of ANSI N45.2.3 lists several applicable standards. Of these standards, only those referenced by the Davis-Besse Updated Safety Analysis Report will be considered applicable.

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

24. ANSI N45.2.4-1972, "Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction Phase of Nuclear Power Generating Stations".

Toledo Edison complies with the requirements of this standard with the following clarifications:

1. Section 1.1 of ANSI N45.2.4 specifies equipment to which the standard applies. In lieu of this, Toledo Edison will apply this standard to those systems listed on the Davis-Besse Unit #1 Q-List and their ancillary equipment which falls within the "Q" boundaries of these systems.
2. Section 2.2 of ANSI N45.2.4 requires that evidence of compliance by the manufacturer with purchase requirements, including quality assurance requirements, be available at the site prior to applying the requirements of ANSI N45.2.4. In lieu of this, Toledo Edison may proceed with installation, inspection, and testing activities of equipment lacking its quality documentation provided that this equipment has been identified and released in accordance with Toledo Edison's nonconforming material procedures.
3. Section 3.3 of ANSI N45.2.4 requires that records of protective measures maintained during storage for conformance to storage requirements be checked to verify that items are in a satisfactory condition for installation. This check will be made only if equipment requires special storage requirements above those required by ANSI N45.2.2.

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

## 24. ANSI N45.2.4-1972 (Continued)

4. Sections 5.2 and 6.2 of ANSI N45.2.4 lists tests which are to be conducted during construction and post-construction activities. In lieu of these tests, Toledo Edison will conduct only those tests necessary to verify that work has been satisfactorily accomplished during maintenance or modification activities. The specific tests to be performed will be determined by maintenance or facility modification personnel based on work performed and engineering requirements during the planning of these activities. The requirements of Sections 5.2 and 6.2 of ANSI N45.2.4 will be used as guidelines in determining these testing requirements.
5. Section 9 of ANSI N45.2.4 lists several applicable guides or standards. Of these guides and standards, only those referenced by the Davis-Besse Updated Safety Analysis Report will be considered applicable.

## 25. ANSI N45.2.5-1974, "Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants".

Toledo Edison complies with the requirements of this standard with the following clarification:



Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

- |   |   |
|---|---|
| 25. ANSI N45.2.5-1974 (Continued)   | 1. Section 2.2 of ANSI N45.2.5 requires that installation, inspection, and test procedures be kept current with the latest information. This standard is written to address requirements associated with construction phase activities. However, during the operations phase, activities associated with installation, inspection, and testing of structural concrete and structural steel are very minor in frequency and extent. Consequently, procedures for these activities will only be updated prior to commencing the activity. Since the work scope in these areas during operation is extremely small and minor in nature, procedures for structural concrete and structural steel installation, inspection, and testing activities will not necessarily comply with the full requirements of ANSI N45.2.5. Instead, ANSI N45.2.5 will be used only as guidance in the development of these procedures. |
| 26. ANSI N45.2.6-1978, "Qualifications of Inspection, Examination, and Testing Personnel for the Construction Phase of Nuclear Power Plants".   | Toledo Edison complies with the requirements of this standard with clarifications to Regulatory Guide 1.58.   |
| 27. ANSI N45.2.8-1975, "Supplementary Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants". | Toledo Edison complies with the requirements of this standard with the following clarifications:  |

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

## 27. ANSI N45.2.8-1975 (Continued)

1. Section 2.9 of ANSI N45.2.8 requires that evidence of compliance by the manufacturer with purchase requirements including quality assurance requirements, be available at the site prior to applying the requirements of ANSI N45.2.8. In lieu of this, Toledo Edison may proceed with installation, inspection, and testing activities of equipment lacking its quality documentation provided that this equipment has been identified and released in accordance with Toledo Edison's nonconforming material procedures.
2. Section 4.5.1 of ANSI N45.2.8 provides requirements for the cleaning, flushing, and conditioning of installed systems. In lieu of these requirements, Toledo Edison's position on Regulatory Guide 1.37 applies.
3. Section 5 of ANSI N45.2.8 provides requirements for the preoperational, cold functional, and hot functional testing on installed systems. These tests are applicable only for major modification requiring prior NRC approval. In these cases, the requirements of Section 5 of ANSI N45.2.8 will be used as guidelines in determining the testing requirements following such modification. For modifications not requiring prior NRC approval or maintenance performed during the operational phase, Toledo Edison will perform post-modification or post-maintenance tests to verify that work has been satisfactorily accomplished.

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

Toledo Edison complies with the requirements of this standard with the following clarifications:

1. Add the following definitions to Section 1.4 of ANSI N45.2.9:

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

## 28. ANSI N45.2.9-1974 (Continued)

- a. Quality Assurance Records - A document is considered completed when all applicable information has been recorded and the record has been reviewed and approved by the applicable individuals.
- b. Authenticated Records - Those records which are clearly identified as a statement by the individual or organization holding responsibility. Handwritten signatures are not required if the document or printout is clearly identified as a statement by the reporting individual or organization.
- c. As Constructed - An installation shall be considered to be in an "as constructed" or "as-built" condition if it is installed within the tolerances indicated in the design output documents.

- 2. Section 3.2.7 of ANSI N45.2.9 specifies types of Quality Assurance records with recommended minimum retention periods. In lieu of this requirement, Toledo Edison will utilize the Davis-Besse Unit #1 Technical Specifications to determine the Quality Assurance record types requiring retention.
- 3. Section 5.6 of ANSI N45.2.9 requires the record storage facility to maintain a four-hour fire rating. In lieu of this requirement, Toledo Edison considers the minimum two-hour fire rating as specified in ANSI N45.2.9-1979 as an acceptable alternative.

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

Toledo Edison complies with the requirements of this standard with the following definition added:

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

## 29. ANSI N45.2.10-1973 (Continued)

1. Use-As-Is Temporarily - A disposition which may be imposed for a nonconformance when it can be established that the discrepancy will result in no adverse conditions, that the item under consideration will continue to meet its intended safety function, and that it is desirable for other reasons to repair or rework the item at a later date.

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

Toledo Edison complies with the requirements of this standard with clarifications to Regulatory Guide 1.64 and with the following clarifications:

1. Section 3.1 of ANSI N45.2.11 implies that all necessary design input (as listed in Section 3.2) should be available prior to the start of a design activity. In practice, certain design activities are initiated before the firm input requirements are available. (For example, foundation designs prepared based on preliminary information or equipment sizes and mounting, embedded conduit run based on preliminary estimates of circuit requirements, etc.). In lieu of this requirement, all necessary design input be available before completion of final design of the work affected by the input and that final design input will be available for use in verification of the final design.
2. Section 4.1 of ANSI N45.2.11 in Paragraph 3 implies traceability back from final design to the source of design input. In practice, a literal interpretation of this is not always possible. For example, final design drawings do not identify the related calculations. This paragraph will be interpreted to mean that it shall be possible to relate the criteria used and analyses performed to the final design documents and that record files will permit location of analyses supporting specific design output documents.

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

30. ANSI N45.2.11-1974 (Continued)

3. Section 4.2 of ANSI N45.2.11 implies a requirement for retention of all calculations. All manual calculations will be retained. However, for computer programs only documentation of the design input, assumptions made in the analyses, results obtained, and evidence of verification will be retained since permanent retention of all versions of all computer programs is not considered practical or necessary if sufficient information is available for a competent individual to verify the results using the input and assumptions. The base computer program, including revisions thereto, will be retained as a quality assurance record in accordance with the requirements of Regulatory Guide 1.88.
4. Section 10 of ANSI N45.2.11 covers in-process documentation, relating to checking and coordination of drawings (for example, check and coordination prints) or copies of marked-up specifications used to solicit comments shall be retained until the drawing or specification is approved and issued for use. Such in-process documents will be available for review/audit until the document is approved, but may be discarded once the document has been approved. In the first sentence of the second paragraph the phrase "final design documents" shall mean those documents which are the latest revision that has been issued for use.

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

Toledo Edison complies with the requirements of this standard with the following clarification:

1. Section 2 of ANSI N45.2.12 provides requirements for the training and qualification of auditing personnel. In lieu of this requirement, Toledo Edison will qualify its auditors in accordance with the requirements of Regulatory Guide 1.146.



Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry CodesNRC REGULATORY GUIDE, ANSI  
STANDARD OR INDUSTRY CODETOLEDO EDISON POSITION

32. ANSI N45.2.13-1976, "Quality Assurance Requirements for Control of Procurement Items and Services for Nuclear Power Plants".

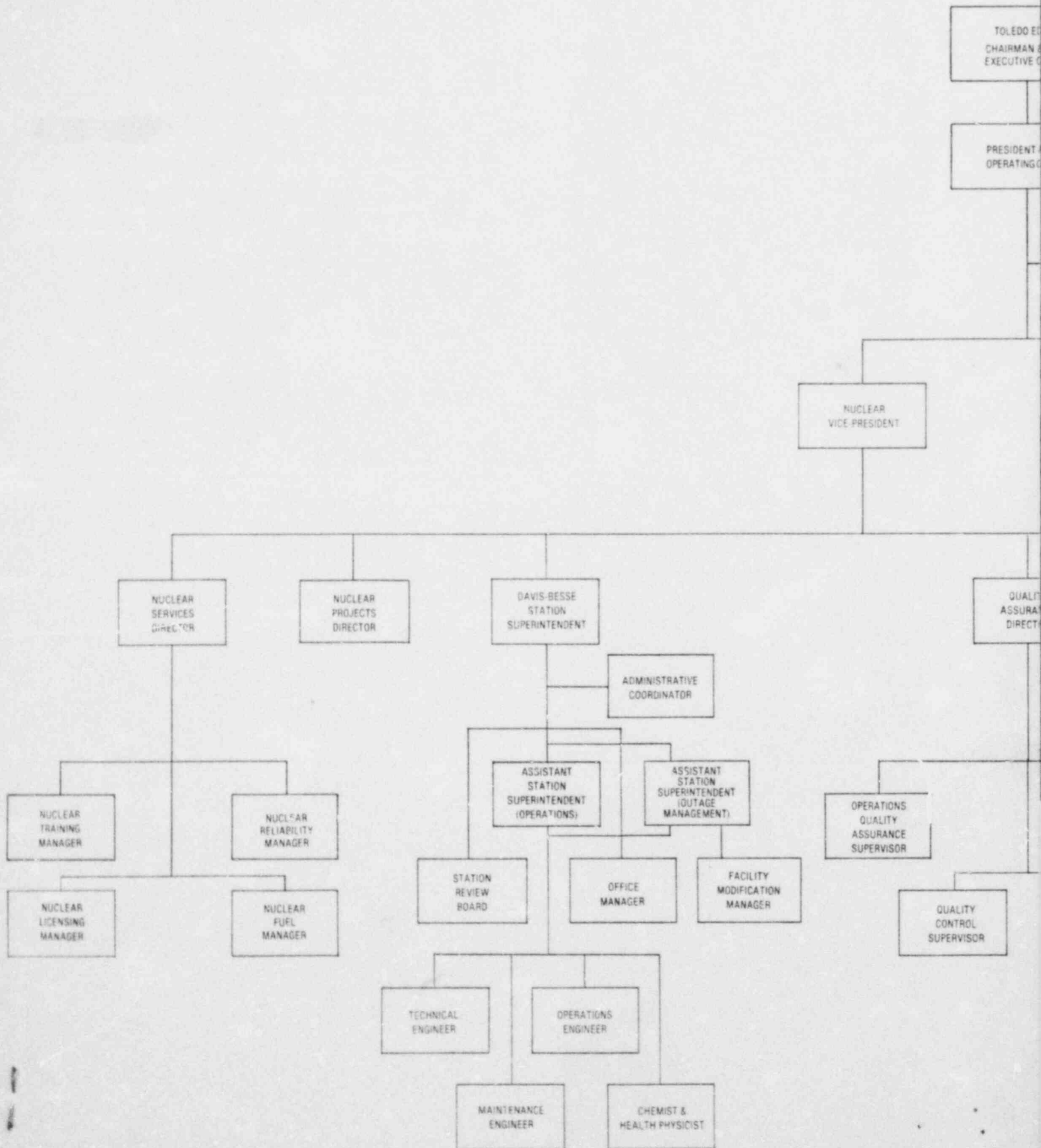
Toledo Edison complies with the requirements of this standard with the following clarifications:

1. Section 4.2.a of ANSI N45.2.13 provides requirements when evaluating a supplier's history. When evaluation of a supplier is based solely on historical supplier data, this data will primarily include records that have been accumulated in connection with previous Toledo Edison procurement actions. Data that includes experience of users of identical or similar products of the prospective supplier and product operating experience will be used if available.
2. Section 4 of ANSI N45.2.13 provides requirements for the selection of procurement sources. For "commercial grade items" in which there are no quality assurance program or quality documentation requirements, the requirements of this section need not be adhered to. However, the procurement documents shall contain requirements specific to the item being procured.
3. Section 10.2.c of ANSI N45.2.13 defines requirements for certificates of conformance. Toledo Edison procurement documents specify the specific purchase requirements such as codes, standards, etc. to be certified to by the supplier in his certificate of conformance. When the supplier certifies that these purchase requirements have been met, this inherently also certifies that there are no purchase requirements that have not been met. Therefore, Section 10.2.c of ANSI N45.2.13 is not applicable to Toledo Edison's Certificate of Conformance system.
4. Section 10.2.d of ANSI N45.2.13 is interpreted as follows: The person attesting to a certificate shall be an authorized and responsible employee of the supplier and shall be identified by the supplier.

Table 17.2-1 (Continued)

Applicable NRC Regulatory Guides, ANSI Standards and Industry Codes

<u>NRC REGULATORY GUIDE, ANSI STANDARD OR INDUSTRY CODE</u>	<u>TOLEDO EDISON POSITION</u>
33. ANSI N45.2.23-1978, "Qualification of Auditing Personnel".	Toledo Edison complies with the requirements of this standard.
34. ANSI N101.4-1972, "Quality Assurance Protective Coatings Applied to Nuclear Facilities".	Toledo Edison complies with the requirements of this standard with clarification to Regulatory Guide 1.54.
35. National Board Publication NB-23, Rev. 4, 1983, "National Board Inspection Code".	Toledo Edison complies with the requirements of this code.
36. SNT-TC-1A-1975, "Personnel Qualification and Certification in Nondestructive Testing".	Toledo Edison complies with the requirements of this practice.
37. ASME Section XI, 1977 Edition thru Summer 1978 Addenda, "Rules for Inservice Inspection of Nuclear Power Plant Components".	Toledo Edison complies with the requirements of this code for welds and components except where relief has been granted in accordance with the Davis-Besse Unit #1 Technical Specifications. Inservice testing of pumps and valves is performed in accordance with the 1974 Edition through Summer 1975 Addenda of ASME Section XI.



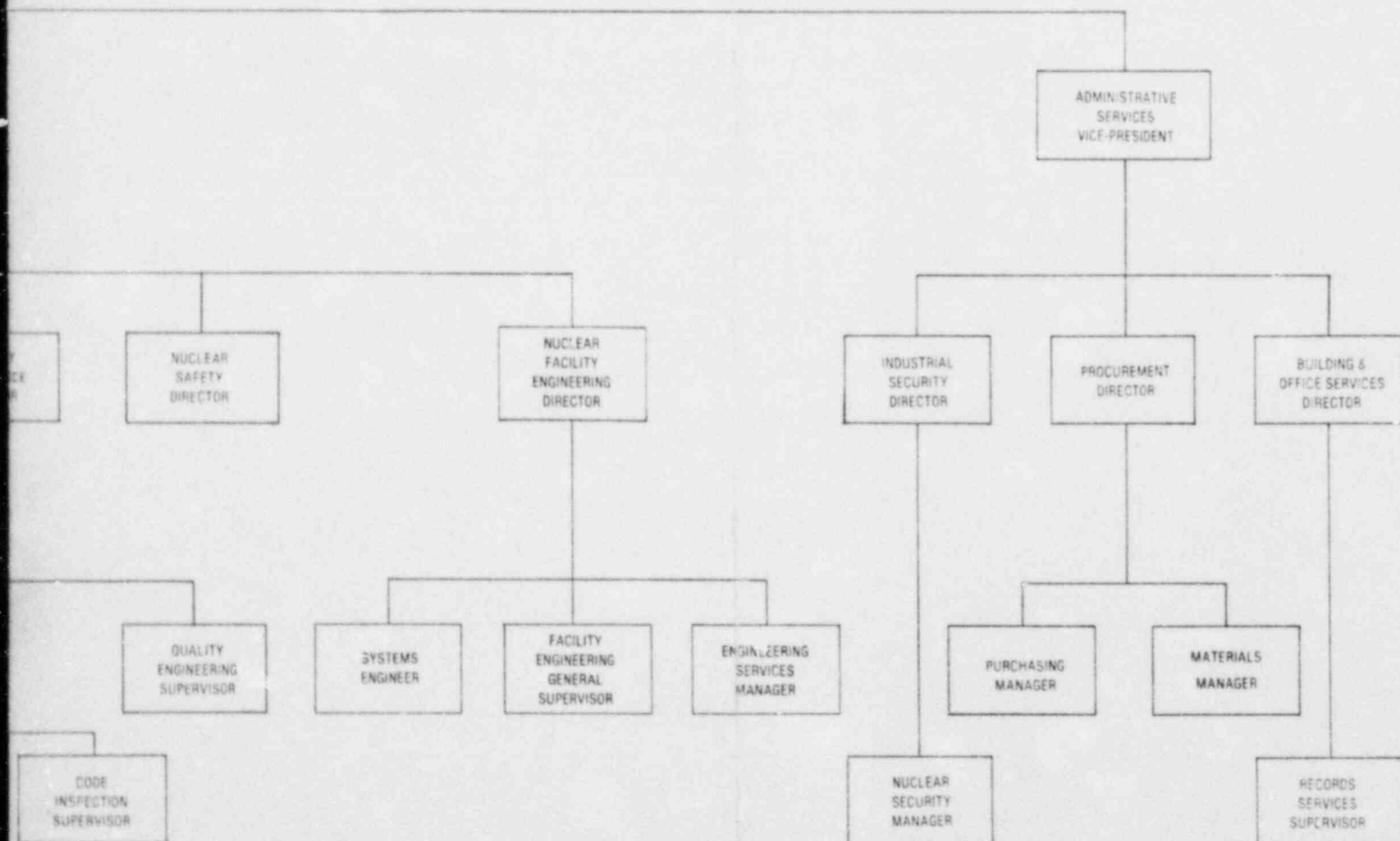
SON  
CHIEF  
OFFICER

CHIEF  
OFFICER

DAVIS-BESSE NUCLEAR POWER STATION  
UNIT NO. 1 ORGANIZATION CHART

FIGURE 17-1

COMPANY  
NUCLEAR  
REVIEW BOARD



REVISION 1  
JULY 1983

Figure 17-2

Activities Under the Purview of the Quality Assurance ProgramAPPLICABLE 10CFR50 APPENDIX B CRITERIA

<u>ACTIVITY</u>	<u>CRITERIA</u>																	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII
Inservice Inspection	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Surveillance Test (Appendix A Tech Specs)	X	X			X	X				X	X	X		X		X	X	X
Station Operations	X	X			X	X					X			X		X	X	X
Station Administration	X	X			X	X										X	X	X
Out-of-Core Fuel Management	X	X			X	X		X		X			X	X		X	X	X
In-Core Fuel Management	X	X			X	X										X	X	X
Radiation Safety and Chemistry	X	X			X	X				X	X	X		X		X	X	X
Environmental Radiological Monitoring	X	X		X	X	X	X			X	X	X		X		X	X	X
Maintenance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Industrial Security	X	X			X	X				X	X			X		X	X	X
Emergency Plan	X	X			X	X					X			X		X	X	X
Personnel Training	X	X			X	X										X	X	X
Procurement	X	X		X	X	X	X	X		X			X	X	X	X	X	X
Corrective Action/Reports Management	X	X			X	X									X	X	X	X



Figure 17-2 (Continued)

Activities Under the Purview of the Quality Assurance ProgramAPPLICABLE 10CFR50 APPENDIX B CRITERIA

<u>ACTIVITY</u>	<u>CRITERIA</u>																	
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII
Records Management	X	X			X	X										X	X	X
Radwaste Management	X	X		X	X	X				X			X	X		X	X	X
Quality Control	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fire Protection	X	X	X	X	X		X			X	X			X	X	X	X	X
Nuclear Licensing	X	X		X	X											X	X	X
Fuel Procurement	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Modifications	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nuclear Facility Engineering	X	X	X	X	X	X	X			X					X	X	X	X
Radwaste Shipments (10CFR71)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## TABLE 17-3

## President's Letter of Authorization

NUCLEAR QUALITY ASSURANCE PROGRAM POLICY

The establishment of a formal and comprehensive Nuclear Quality Assurance Program is vital to the safety, security and general well-being of the general public, our customers, employees and shareowners. Implementation of this policy will contribute to the safe and reliable design and operation of the Davis-Besse Nuclear Power Station.

It is hereby the policy of this company that such a program be established and that it fully comply with the requirements of 10CFR50, Appendix B; applicable NRC Regulatory Guides and ANSI Standards; Section XI of the ASME Boiler and Pressure Code; and the National Board Inspection Code. This program is to cover the design, maintenance, modification, and operation of the Davis-Besse Station.

This program shall define specific individual and organizational responsibility and authority. Further, it shall prescribe procedures for compliance with regulatory requirements and establish appropriate guidelines for implementation of these procedures. The program shall be published as "The Toledo Edison Nuclear Quality Assurance Manual".

Total organizational involvement in this program is required of all affected personnel. All company and other associated personnel involved in or responsible for quality assurance of the Davis-Besse Nuclear Power Station shall comply with this manual. All company Quality Assurance personnel as part of their job requirements are charged with the responsibility of being fully knowledgeable of the requirements contained within this manual. All company personnel are responsible for implementation of those portions of the Nuclear Quality Assurance Manual pertinent to their respective areas of responsibility.

The Vice President, Nuclear is designated the responsibility, under the President, for assuring that the Nuclear Quality Assurance Program is established and implemented. Periodically, he shall review the overall effectiveness of the Nuclear Quality Assurance Program. Potential problem areas which require administrative corrective action noted during the course of his review shall be reported to me together with appropriate recommendations for action to be taken.

The Quality Assurance Director, under the Vice President, Nuclear, is responsible for development, including revision and updating of the Nuclear Quality Assurance Program.

The Quality Assurance Director is responsible for assuring the adequacy and implementation of the approved Quality Assurance Programs of Toledo Edison and its agents and suppliers/contractors. He has the responsibility and authority to stop nonconforming activities and the processing of nonconforming material. The Quality Assurance Director is hereby assigned the authority and organizational freedom necessary to adequately fulfill his responsibilities.

D-B

Any employee who at any time believes that the Toledo Edison Nuclear Quality Assurance Program is not being fully complied with has the right, and indeed the obligation, to so inform his or her superiors of such deviations, including the right of direct appeal to the President of the Company.

Wendell A. Johnson  
President

January 3, 1983