ATTACHMENT I

Quality Assurance Program Description
Revision 14

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
December 1997

9801140413 971222
PDR ADOCK 05000247
P PDR

This Quality Assurance Program description generally follows the format of ANSI N18.7-1976 including the sequential identification of its Sections, except that Section 1 "Scope" and Section 2 "Definition" are not included. Consequently, this description begins with Section 3.0.

Revision 14, December 1997

QUALITY ASSURANCE PROGRAM

TABLE OF CONTENTS

SECTION		PAGE NO.
	Foreword	i
3.0	Owner Organization	1
	3.1 General	1
	3.2 Assignment of Authority & Responsibility	2
	3.3 Indoctrination and Training	5
	3.4 On-site Operating Organization	5
4.0	Reviews and Audits	7
	4.1 Audit Program	7
5.0	Program, Policies and Procedures	9
	5.1 Program Description	9
	5.2 Rules of Practice	9
	5.2.2 Procedure Adherence	10
	5.2.3 Operating Orders	10
	5.2.4 Special Orders	11
	5.2.5 Temporary Procedures	11
	5.2.6 Equipment Control	12
	5.2.7 Maintenance and Modification	13
	5.2.7.1 Maintenance	13
	5.2.7.2 Modifications	15
	5.2.8 Surveillance Testing and Inspection Schedules	19
	5.2.9 Plant Security and Visitor Control	19
	5.2.10 Housekeeping and Cleanliness Control	20
	5.2.11 Corrective Actions	21
	5.2.12 Plant Records Management	21
	5.2.13 Procurement and Materials Control	22
	5.2.13.1 Procurement Document Control	22
	5.2.13.2 Control of Purchased Material, Equipment and Services	23
	5.2.13.3 Identification and Control of Materials, Parts and Components	25
	5.2.13.4 Handling, Storage and Shipping	26
	5.2.14 Nonconforming Items	27
	5.2.15 Review, Approval and Control of Procedures	28
	5.2.16 Control of Measuring and Test Equipment	29
	5.2.17 Inspections	30
	5.2.18 Control of Special Processes	30
	5.2.19 Test Control	32
	5.3 Preparation of Instructions and Procedures	33

APPENDIX A	Class "A" Items
CHART A	Corporate Organization
CHART B	Nuclear Power Organization
CHART C	Generation Engineering Organization
TABLE A	Interpretations/Alternates/Exceptions
TABLE B	Interpretations/Alternates

FOREWORD

The following Quality Assurance Program conforms to the requirements of 10CFR50, Appendix B. Additionally, Con Edison commits to having a Quality Assurance Program complying with the Regulatory Position in the following Regulatory Guides as modified by Table A and Table B.

NRC Regulatory Guides

1.8	"Personnel Selection and Training," Revision 1, September 1975
1.29	"Seismic Design Classifications," Revision 3, September 1978
1.30	"Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electrical Equipment," August 11 1972
1.31	"Quality Assurance Program Requirements (Operation)," Revision 2, February 1978
1.37	"Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants", March 1973
1.38	"Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants," Revision 2, May 1977
1.39	"Housekeeping Requirements for Water-Cooled Nuclear Power Plants," Revision 2, September 1977
1.54	"Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants," June 1973
1.58	"Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," Revision 1, September 1980
1.64	"Quality Assurance Requirements for the Design of Nuclear Power Plants," Revision 2, June 1976
1.74	"Quality Assurance Terms and Definitions," February 1974
1.88	"Collection, Storage and Maintenance of Nuclear Power Plant Quality Assurance Records," Revision 2, October 1976
1.94	"Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel during the Construction Phase of Nuclear Power Plants," Revision 1, April 1976
1.116	"Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems," Revision O-R, June, 1976
1.123	"Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants," Revision 1, July 1977
1.144	"Auditing of Quality Assurance Programs for Nuclear Power Plants," January 1979
1.146	"Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants," August 1980

Many ANSI standards endorsed by these Regulatory Guides give quality assurance programmatic control for the design and/or construction phases of nuclear power plants. Accordingly, Con Edison has, where practicable, adapted these standards' requirements and guidelines to the operations phase of its nuclear power plants and has developed provisions for certain operations phase conditions not addressed in these standards.

Where any discrepancies exist between this program description and the requirements and guidelines of the above Regulatory Guides, the requirements and guidelines of the ANSI Standards and associated Regulatory Guides shall prevail as modified by Table A and Table B.

QUALITY ASSURANCE PROGRAM

3.0 Owner Organization

3.1 General

Con Edison owns nuclear units Indian Point No. 1 and No. 2. Unit No. 2 is in operation. This program of administrative controls and quality assurance applies to the operation of Indian Point Unit No. 2, including those activities conducted on the Unit No. 1 site that are necessary to support Unit No. 2 operation. This program is in effect at all times to assure that operational phase activities are carried out without undue risk to the health and safety of the public.

This program is documented through corporate instructions and administrative procedures developed by participating organizations and provides control of activities affecting the quality of structures, systems, and components of the nuclear plants and their operation consistent with their importance to safety.

The determination of which systems, structures and components affect safety is in accordance with 10 CFR 50 Appendix B and includes those

- which comprise or are necessary to ensure the integrity of the reactor coolant pressure boundary
- which ensure the capability to shutdown the reactor and maintain it in a safe shutdown condition
- whose failure could result in conservatively calculated offsite doses that exceed 0.5 Rem to the whole body or its equivalent to any part of the body; and
- structures whose failure could reduce the functioning of plant features within the above categories to an unacceptable safety level.

Those structures, systems, and components are those that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public and are designated as Con Edison Class "A". Activities affecting quality are documented within a document control system which assures that instructions, procedures and drawings are reviewed and approved for release by authorized individuals.

"Class A" items include environmentally qualified (EQ) equipment, which are those items located in a harsh environment and, which are in compliance with 10 CFR 50.49, the DOR Guidelines, and/or NUREG-0580.

The EQ equipment is identified on an electronic data base which is updated by an EQ System Engineer. The electronic data base is accessible by organizations such as Nuclear Power, Nuclear Power Engineering and Nuclear Quality Assurance.

3.2 Assignment of Authority & Responsibility

The Chairman and Chief Executive Officer of Con Edison has directed that all personnel involved in activities associated with the safety of the nuclear power plants participate in the quality assurance program.

Lines of authority, responsibility, and communication among the organizations participating in this program are shown in Charts A and B. Chart A depicts the corporate organization and Chart B the on-site organization. These relationships, departmental responsibilities and key personnel job descriptions are documented and updated as appropriate. *Functions or responsibilities assigned to specific position titles may also be delegated in accordance with Corporate Policies.* [1]

The major organizations or groups participating in this program are Nuclear Power (including Nuclear Quality Assurance),[2] *Generation Engineering (including Design Engineering, Site Engineering and Nuclear Projects)*[3], Central Stores and the Nuclear Facilities Safety Committee. Changes to the quality assurance program, which is described herein, may be initiated by any of these organizations. Nuclear Quality Assurance coordinates overall development of this Quality Assurance Program Description and obtains concurrence of the organization(s) affected by the changes. The approval of at least the Vice President, Nuclear Power is required for changes to this Quality Assurance Program Description for submittal to the Nuclear Regulatory Commission.

Procedural controls provide for "waiving" of tests, inspections and operations previously specified by Nuclear Power Engineering, Nuclear Quality Assurance or Nuclear Power. These procedural controls provide authority to personnel or organizations that originally specified the test, inspection or operation to reevaluate their necessity and, where appropriate, to authorize a waiver.

In case of an emergency or a similar situation, procedural controls provide for possible waivers to inspections, tests or operational requirements. These conditions and controls, discussed further in item 3 of Table A, require documented authorization by the Vice President, Nuclear Power.[4]

Provisions in the quality assurance program also provide for development of procedures for unique situations which differ from specified programmatic controls with the approval of the Senior Vice President, Central Operations.

Disputes involving quality arising from a difference of opinion between Nuclear Quality Assurance personnel and other departments' personnel are resolved by the direct management of the personnel involved or, where necessary, by a higher level of management. Nuclear Quality Assurance, by virtue of its independence within the corporate structure, can assure that significant quality disputes receive appropriate resolution satisfactory to Nuclear Quality Assurance.

The duties and responsibilities of the participants are described in Position Guides, procedures or manuals. These duties and responsibilities are designed to assure that the attainment of program objectives is verified by qualified personnel who do not perform or directly supervise the work.

The Vice President, Nuclear Power and, reporting to him, the Plant Manager and the *General Manager Site Services* [5]are responsible for the day-to-day operation, safety, security and maintenance at the plant.

The Vice President, Generation Engineering is responsible for the day-to-day design, site engineering support and construction activities.[6]

---

[1] Added
[2] Deleted Nuclear Power Engineering, Maintenance and Construction, and Purchasing.
[3] Added
[4] Deleted or his designated alternate.
[5] Changed Department Manger to General Manager.
[6] Added

The *General* Manager, Nuclear Quality Assurance *and Oversight*, oversees the quality assurance activities at Indian Point and Nuclear Quality Assurance procurement and audit activities. He has *four*[7] managers reporting to him: Manager, Quality *Surveillance and Audits*; Manager, Nuclear *Quality Control/ Procurement Quality Assurance* and; *Manager, Independent Safety Review (ISR)* and Manager, *Quality Assurance* Programs.[8] The General Manager, Nuclear Quality Assurance and Oversight reports directly to the Vice President, Nuclear Power. The General Manager, Nuclear Quality Assurance and Oversight is responsible for the indoctrination and training of personnel reporting to him.

The Nuclear Facilities Safety Committee (NFSC) is composed of Company employees *and may also utilize cognizant personnel from outside the Company. A* majority of *the NFSC membership is* independent of the Nuclear Power organization.[9] The NFSC is responsible for advising the Senior Vice President, Central Operations regarding plant safety. The organization and duties of this Committee are described in the plant Technical Specifications.

The NFSC is kept fully informed by Nuclear Power management personnel of matters related to nuclear safety. This information is documented and reviewed by the NFSC. The NFSC meets at least quarterly to review items related to safety and semiannually to review and evaluate the results of periodic audits performed by Nuclear Quality Assurance to further assure safe operation and the adequacy of the audit program.

An on-site group known as the Station Nuclear Safety Committee (SNSC) functions within the on-site organization and advises the Vice President, Nuclear Power on all matters related to nuclear safety. The organization and duties of the SNSC are described in a charter forming part of plant Technical Specifications. This committee meets at least once per calendar month and is comprised of key station personnel.

Nuclear Power Engineering is primarily responsible for the design activities included in system and component modification and the implementation of plant modifications. To exercise this responsibility, *Design*[10] Engineering prepares, issues, revises, and controls design documents including specifications, drawings, and modification procedures.

Site [11] Engineering provides direct engineering support and day-to-day technical advice to the plant. This group is located at the plant site and reports to Nuclear Power Engineering. *It also prepares and issues documents associated with minor modifications.*[12]

Nuclear Projects, *which reports to Nuclear Power Engineering*, is responsible for *implementing*[13] plant modifications, utilizing either Company forces or outside contractor labor, and may also be given responsibility for selected repairs. *Nuclear Power Maintenance or Instrument and Control may also accomplish selected plant modifications.*[14] Work is accomplished under the direction of designated Nuclear Projects, Project Superintendents in accordance with Nuclear Projects administrative directives. Nuclear Projects is responsible for initiating, reviewing and preparing purchase documents for material for plant modifications. Nuclear Projects issues purchase documentation via *Nuclear Power Material*

---

[7] Changed from 3 to 4. Changed Department to General.
[8] Changed titles to reflect current names and organization chart. Added Manager, Independent Safety Review (ISR).
[9] Clarified the composition of NFSC and added cognizant personnel from outside the Company.
[10] Changed from Nuclear Power to Design.
[11] Changed from Field to Site.
[12] Added.
[13] Deleted Maintenance and Construction via its on site organization, Moved this paragraph from fourth paragraph page 4 and added *which reports to* Nuclear Power Engineering and added implementing.
[14] Added

Procurement.[15] Nuclear Projects utilizes the receiving inspection and storage services of Nuclear Power Material Procurement and the Central Stores Cortlandt Warehouse.[16]

Configuration Management and Control is responsible for document control and distribution of design documents.[17]

Nuclear Power Material Procurement is responsible for preparing, issuing and controlling purchase orders, which are initiated by the plant. It is also responsible for reviewing purchase requisitions issued by Nuclear Projects and Nuclear Power Engineering; for receipt inspection of incoming Class "A" items purchased by Nuclear Power, Nuclear Projects, and Nuclear Power Engineering; and, for the inventory control of Class "A" stock items.[18]

Nuclear Power Material Procurement is responsible for issuing and controlling purchase orders, which are initiated by Nuclear Power Engineering, and by Nuclear Projects. Nuclear *Power Material Procurement* also maintains an approved vendors list.[19]

Central Stores (Cortlandt Warehouse) provides storage facility for materials and supplies for Indian Point Station and fills orders for supplies from users and other storerooms.

Nuclear Power is responsible for procurement and timely delivery of nuclear fuel to Indian Point 2 consistent with assuring reliable supply. Nuclear Power responsibilities include planning and providing for all nuclear fuel requirements, determining the required quantities of uranium, UF6 conversion services, enrichment, fabrication, shipping, storage and other nuclear fuel services, preparation of uranium specifications, arranging and controlling all traffic of nuclear fuel and by-products prior to fabrication and in transfer to and from the nuclear plant.

Nuclear Quality Assurance is responsible for assuring that quality assurance programs are established consistent with this program and Company policy and, assures that these programs are properly implemented. Nuclear Quality Assurance carries out these responsibilities primarily through program development, site surveillance and first-line inspection and by auditing those activities which affect plant safety. Nuclear Quality Assurance develops audit plans and schedules, and administers other activities associated with auditing. The *General* Manager, Nuclear Quality Assurance *and Oversight* [20]reports to the Vice President, Nuclear Power, who reports directly to the Senior Vice President, Central Operations. This provides Nuclear Quality Assurance with the authority and organizational freedom to identify quality problems; to initiate, recommend or provide solutions through designated channels; and to verify implementation of solutions. Nuclear Quality Assurance is responsible for indoctrination and training of Nuclear Quality Assurance personnel and for reviewing proposed changes to this program. Nuclear Quality Assurance reviews documents, which implement this program to assure that they include adequate quality assurance principles.

Each organization participating in this program is responsible for providing indoctrination and training of its personnel performing activities affecting quality and safety to ensure that suitable proficiency is achieved

---

[15] Changed to show Nuclear Projects purchases materials through Nuclear Power Material Procurement and deleted Nuclear Projects responsibility for performing receipt inspection.

[16] Deleted Field Engineering provides direct engineering support to the plant. This group is located at the plant site and reports to Nuclear Power Engineering. And System Engineering and Analysis provides day-to-day technical advice to the plant. This group is also located at the plant site but reports to Nuclear Power. System Engineering and Analysis also prepares and issues documents associated with minor modifications.

[17] Added

[18] Revised to show procurement and receipt inspection is performed by Nuclear Power Material Procurement.

[19] Changed Purchasing to Nuclear Power Material Procurement.

[20] Changed Department to General and added and Oversight.

and maintained. Nuclear Quality Assurance[21] certifies Con Edison non-destructive examination personnel. Nuclear Quality Assurance personnel are trained to have and maintain proficiency in skills related to their specific assignments and in their knowledge of this program. Nuclear Quality Assurance personnel are provided indoctrination and training in the areas of quality assurance management and quality assurance practices, procedures, and requirements, including applicable regulatory and code requirements. Nuclear Quality Assurance provides indoctrination and training concerning the requirements of this quality assurance program to Nuclear Quality Assurance personnel, and appropriate personnel in other organizations.

3.3 Indoctrination and Training

Indoctrination and training in the administrative controls and quality assurance program is conducted for Nuclear Power Engineering,[22] *Nuclear Power, Central Stores*, and Nuclear Quality Assurance personnel who perform activities which affect quality. This training includes:

(1) Company policies, procedures and instructions that establish the program,
(2) Procedures or instructions that implement the program.

Personnel participating in the quality assurance program are conversant with the requirements of Appendix B to 1O CFR 50 and the Regulatory Guides, as appropriate, listed in the Foreword. To further their understanding of this document, such personnel participate in industry-technical society discussion groups and maintain contact with latest industry literature.

Training of Nuclear Quality Assurance personnel is based on the individual needs to improve or develop new skills in performing their jobs. Accordingly, selected courses are attended by Nuclear Quality Assurance Engineers, Nuclear Quality Assurance Examiners and Consultants. These courses are in the areas of quality assurance management, quality assurance requirements for the nuclear industry, engineering auditing, reliability, non-destructive examination techniques, and welding technology. When required by Code, detailed and specific training is given to examiners in non-destructive examination in accordance with Society for Nondestructive Testing (SNT) specifications.

A record of training sessions, including a list of those attending and a description of the material discussed, is maintained.

For operations training, station staff retraining and replacement training, a program is maintained under the direction of a *Section*[23] Manager, Nuclear Training.

3.4 On-site Operating Organization

The on-site operating organization includes one or more individuals knowledgeable in the following fields: nuclear power plant operation, nuclear power plant mechanical, electrical and electronic systems; nuclear engineering; chemistry and radiochemistry and radiation protection. Members of the facility staff have appropriate experience, training and retraining to assure that necessary competence is maintained in accordance with the provisions of the plant Technical Specifications. The training and retraining programs are documented and approved by the *Section*[24] Manager, Nuclear Training.

---

[21] Deleted or Nuclear Power Test and Performance, as applicable.
[22] Deleted Nuclear Projects which is part of Nuclear Power Engineering and Operations and Maintenance which are part of Nuclear Power. Added Central Stores and Nuclear Power.
[23] Changed title from Department to Section to conform with organization chart B.
[24] Changed Department to Section.

Qualification and training in welding is in accordance with the requirements of ASME Section IX or other applicable codes.

Positions requiring personnel to have a current NRC reactor operator license are delineated in the plant technical specifications.

The bases for the qualification of personnel who perform quality assurance inspections, examinations and tests are the following:

a) Education: minimum required - high school graduate or, alternatively, suitable job experience in the particular area;
b) Training: minimum required - evidence of specialized training sufficient to perform a particular job, e.g., welding inspection or, alternatively, demonstrated capability via job experience;
c) Evaluation: personnel are evaluated annually to determine their capability to perform their job function. Each evaluation is documented and included in the individual's personnel folder;
d) Specific Capabilities:
   1. Physical: minimum required - physically capable of performing the job function including adequate vision and other physical characteristics, if necessary for the job;
   2. Technical: minimum required - familiarity with tools and equipment to be used on the job and proficiency in their use including, as necessary, measuring and test equipment calibration and control methods;

The above qualification bases apply to Nuclear Quality Assurance[25] and Nuclear Power Material Procurement inspection personnel who perform site inspections of maintenance and modification activities and receiving inspections respectively.[26]

For particular projects, Nuclear Quality Assurance, Nuclear Projects or Nuclear Power Material Procurement personnel may be supplemented by other Company organizations or by outside forces. In these situations, Nuclear Quality Assurance, Nuclear Projects and Nuclear Power Material Procurement retain the responsibility for using appropriately qualified personnel.

If the performance of an individual has not met the requirements specified for the particular job, supervision has recourse to provide additional training, additional supervision or to remove the individual from the job assignment. Position Guides, procedures and manuals identify major responsibilities of particular positions. On-the-job supervision and formal yearly reviews assure the necessary continued proficiency of any particular individual. Prior to the assignment of personnel to a job function, the qualifications of the personnel are evaluated by supervision. This evaluation considers previous education, training, and results of past supervisory reviews and on-the-job experience and performance to assure the initial proficiency of the individual. Supervising personnel monitors on-the-job performance after assignment to particular job functions.[27] The qualifications of Nuclear Quality Assurance and *Nuclear Power* Material Procurement[28] inspection personnel, including their education, experience and training, are documented. Personnel involved in particular NDE activities, including the performance evaluation and supervision in nondestructive examinations are appropriately qualified in accordance with the requirements specified in SNT-TC-1A. Personnel on-the-job performance is reviewed annually, and the results are documented and retained in personnel folders.

The facility management and technical support organizations are defined in the plant Technical Specifications. At least one licensed Operator is in the control room when fuel is in the reactor. At least

[25] Deleted Nuclear Projects.
[26] Added respectively to clarify sentence.
[27] Revised sentence for clarity.
[28] Added Nuclear Power and deleted Nuclear Projects.

two licensed Operators are present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips. An individual qualified in radiation protection procedures is on site when fuel is in the reactor. Core alterations after initial fuel loading are directly supervised by a licensed Senior Reactor Operator.

The Plant Manager, Nuclear Power has overall responsibility for facility operation.

The *General Manager*, Nuclear Quality Assurance *and Oversight*[29] is responsible for overall Nuclear Quality Assurance activities. Nuclear Quality Assurance reviews and audits the quality assurance program. Additionally, the Nuclear Facilities Safety Committee periodically reviews audit activities.[30]

4.0 Reviews and Audits

Programs for reviews and for audits of activities affecting plant safety during the operational phase have been established. These programs assure that these activities are carried out in accordance with regulatory requirements, approved procedures and instructions, and license provisions. They provide for the following:

- review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety;
- review of tests, procedures and experiments that affect nuclear safety;
- review of proposed changes to the plant Technical Specifications;
- investigation of all violations of the plant Technical Specifications;
- review of facility operations to detect potential nuclear safety hazards;
- review of the Plant Security Plan and implementing procedures;
- review of the Emergency Plan and implementing procedures;
- verification that reportable events which require reporting to the NRC within twenty-four hours, are promptly investigated and corrected; and
- review of changes to the Process Control Program and the offsite Dose Calculation Manual.

The Station Nuclear Safety Committee (SNSC) and Nuclear Quality Assurance carry out these programs.[31] The independent review program, administered by the Nuclear Facilities Safety Committee (NFSC), identifies those personnel performing reviews; standing committees functioning as independent review bodies; and the composition, meeting frequency, quorum definition of such committees; the kinds of records maintained by such committees and the documentation of reviews as provided for in the plant Technical Specifications. These programs are, themselves, reviewed for effectiveness by management.

The NFSC charter identifies the areas to be audited by Nuclear Quality Assurance; the responsibilities and authorities of involved personnel; provisions for the use of specialists (consultants) or sub-groups; authorization to perform audits; distribution of reports; lines of reporting and authority; timeliness of information dissemination; requirements for follow-up and re-audit and other provisions required for effectiveness reviews and audits.

4.1 Audit Program

The audit program conducted by Nuclear Quality Assurance provides for a comprehensive system of planned and periodic audits to verify that operating nuclear facilities are operated, administered, and managed in accordance with applicable requirements and to assess quality program effectiveness.

---

[29] Change title to conform to current Organization Chart A.
[30] Revised sentence for clarity.
[31] Revised sentence for clarity.

Nuclear Quality Assurance documents audit plans and establishes a schedule of periodic audits. These audits are designed to verify compliance with all aspects of the quality assurance program and are conducted at least once every two years or more frequently commensurate with their safety significance. These audits include the following:

- The conformance of facility operation to all provisions contained within the plant Technical Specifications and applicable license conditions at least once per 12 months;
- The conformance of all provisions contained within the Environmental Technical Specifications (Appendix B) pertaining to radiological matters and applicable license conditions at least once per 12 months;
- The performance, training and qualifications of the entire station staff at least once per 12 months;
- The results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months;
- The Facility Fire Protection Program and its implementing procedures at least once per 24 months;
- The Facility Emergency Plan and implementing procedures at least once per 12 months;
- The Facility Security Plan and its implementing procedures at least once per 12 months;
- A fire protection and loss prevention inspection and audit performed utilizing either qualified offsite licensee personnel or an outside fire protection firm at least once per 12 months;
- The radiological environmental monitoring program and the results thereof at least once per 12 months;
- The Offsite Dose Calculations Manual and implementing procedures at least once per 24 months;
- The Process Control Program and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months;
- The performance of activities required by the quality assurance program to meet the provisions of Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975 at least once per 12 months;
- The Fitness for Duty Program nominally every 12 months;
- The procedure review and revision program that evaluates the need for revising procedures at least every 2 years; and
- Any other area of facility operation considered appropriate by the NFSC, or the Senior Vice President of Central Operations.

The only exception to the two year (or more often) frequency is an inspection and audit of the fire protection and loss prevention program performed by an outside qualified fire consultant which is conducted at least once per 36 months.

The audits are conducted by Nuclear Quality Assurance who may utilize other Consolidated Edison employees (except those having direct responsibility in the area being audited) and/or consultants or specialists from outside the Company. The results of each audit are reviewed by the auditors with the management of the activity audited at the conclusion of the audit. A written report containing the audit findings and recommendations is issued by Nuclear Quality Assurance within thirty days of the completion of the audit process. The audit report is issued to the management of the audited group(s) for reply to the audit results. It is distributed to the Secretary, Nuclear Facilities Safety Committee; the Senior Vice President, Central Operations; the Vice President, Nuclear Power; the General Auditor; the Senior Officers of the activities audited; the *Department Manager, Nuclear Safety and Licensing*, the appropriate manager;[32] the General Manager, Nuclear Quality Assurance and Oversight and, when it involves ASME,

[32] Changed Manager, Regulatory Affairs to Department Manager, Nuclear Safety and Licensing and deleted General between appropriate and Manager.

Section III Code Requirements, to the Authorized Inspector. It is the responsibility of the organization[33] audited to review the report and reply, in writing, within thirty days to Nuclear Quality Assurance concerning the actions to be taken to resolve each finding. Nuclear Quality Assurance is responsible for verifying the effectiveness of these actions, including re-audit when necessary. The Nuclear Facilities Safety Committee reviews the adequacy of the audit program at least semiannually.

5.0 Program, Policies and Procedures

5.1 Program Description

Administrative controls and quality assurance requirements are described in documents such as corporate instructions, station administrative orders and station procedures. A summary document, which identifies these administrative and quality assurance procedures, has been compiled and is maintained current. This document is suitably indexed to identify relationships of the contents to the pertinent criteria of 10 CFR 50, Appendix B and applicable regulatory guides.

Nuclear power plant structures, systems, components and consumables covered by this program are identified as "Class A" Items and are those that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public. A list of "Class A" structures, systems, components and consumables appears in Appendix A. Identification of Class A components within systems are made and documented on a case-by-case basis, as required, via established procedures. This may include declassification. In addition, the Vice President, Nuclear Power has an option to utilize the above program for specific non-safety related modifications. The major organizations and their responsibilities are identified and delineated in paragraph 3.2 of this document.

This program provides control of activities affecting the quality of Class A items to an extent consistent with their importance to safety. In the case of consumables, adequate quality is assured by activities such as testing on arrival, review of manufacturer's certification, or vendor evaluation. Additional controls such as vendor surveillance and receipt inspection are not necessarily performed. These controls are described in the various documents identified in the summary document.

This program takes into account the need for special controls, processes, tests, equipment, tools and skills to attain the required quality and the need for verification of quality by inspection, evaluation or test. These needs are accommodated through the issuance of and compliance with procedures, such as:

a. Non-Destructive Examination Procedures;
b. Welding Procedures;
c. Operating Procedures;
d. Start-up Testing Procedures;
e. Calibration of Measuring and Test Equipment;
f. Receiving Inspection Procedures;
g. Vendor Evaluation Procedures; and
h. Maintenance and Modification Procedures.

5.2 Rules of Practice

Rules and instructions pertaining to personnel conduct and control are contained in various procedures and operating orders issued by the on-site organization. These include special instructions and authority for normal procedural actions, emergency actions, responsibilities of key personnel, watch schedules,

[33] Changed activity to organization.

availability and duties of key personnel at all times, preparation of procedures and documenting and retention requirements.

Responsibilities and authorities of the plant operating personnel are delineated in operating and administrative procedures prepared and approved by appropriate on-site management as required by the sections of the plant Technical Specifications entitled "Administrative Controls." These include:

a. The reactor operator's authority and responsibility for reactor shutdown under various conditions;
b. The responsibility to determine safe operating procedures for reactor return to power after a trip or unscheduled or unexplained power reduction;
c. The responsibility for a Senior Reactor Operator to be present at the plant and the authority to provide direction for returning the reactor to power following a trip or unexplained power reduction;
d. The responsibility to believe and respond conservatively to instrument indications unless they are proved to be incorrect;
e. The responsibility to adhere to the plant Technical Specifications; and
f. The responsibility to review routine operating data to assure safe operation.

5.2.2 Procedure Adherence

The requirement that procedures be adhered to is both a plant administrative requirement and a plant Technical Specification requirement. Safety-related procedures and procedure *changes that change the procedures' intent* are reviewed by the Station Nuclear Safety Committee.[34] In the event of an emergency not covered by an approved procedure, operations personnel take appropriate action to protect the health and safety of the public and to minimize personnel injury and damage to the facility. Written directives identify the manner in which procedures are to be implemented.

Procedural actions which must be committed to memory are those defined as "Immediate Operator Actions" in the Emergency Operating Procedures.

Documentation of procedure use is required when specifically called for by the procedure in question. For example, a startup "Procedure Check-Off" is completed during plant warm-ups and power ascensions from shutdown conditions; a shutdown "Procedure Check-Off" is completed during planned plant shutdowns and cooldowns.

Following a unit trip or shutdown, a precriticality "Procedure Check-Off" is completed prior to initiating control rod withdrawal for the purpose of achieving criticality if more than 24 hours have elapsed since completing the last precritical check-off procedure.

After completion, all check-off procedures are signed by the *Senior* Watch Supervisor.[35] Copies of all procedures are available to appropriate members of the plant staff.

5.2.3 Operating Orders

Dissemination to the plant staff of instructions of general and continuing applicability to the conduct of business is provided through the issuance of appropriate administrative directives and operating procedures to the affected personnel. Station Administrative Orders identify responsibilities and are binding upon all members of the Nuclear Power and *Generation Engineering Groups*[36] as appropriate to the subject matter contained therein. Procedures for activities at the nuclear facility by groups other than Nuclear Power and

[34] Added that change the procedures intent.
[35] Changed from Operations to Senior.
[36] Changed from Maintenance and Construction Departments to Generation Engineering Groups.

Generation Engineering[37] are to be consistent with the requirements of Station Administrative Orders. Additional guidance, if necessary, is issued within individual *departments, sections* or subsections[38] to provide for delineation of detail not covered in Station Administrative Orders. Such additional guidance is in the form of administrative directives and/or procedures and may deal with shift changes, control room restrictions, operator duties and requirements, maintenance instructions, document control and other such matters applicable to the needs for operating a safe nuclear plant.

Routine plant procedures, *including Station Administrative Orders and Administrative Directives*[39], used more *often*[40] than every two years are reviewed and updated via various *continuing* review[41] processes which include consideration of the need for follow-up action (example: procedural revisions)

The *continuing review*[42] processes include:

- plant modifications;
- nonconformance resolutions;
- plant event and significant occurrence analyses;
- operator feedback, including operator training;
- maintenance work package reviews;
- temporary procedure changes;
- surveillance tests;
- operating experience reviews;
- audits and surveillance; and
- responses to NRC correspondence.

Routine plant procedures that have not been used for two years shall be reviewed before use to determine if changes are necessary or desirable.

Non-routine procedures (e.g., emergency operating, off normal, emergency plan implementation and other procedures which are event-initiated) shall be reviewed every two years.

Provisions are made for periodic review and updating of the above instructions. Station Administrative Orders are reviewed biennially. The department managers in Nuclear Power ensure that these reviews are accomplished. Section managers assure that administrative directives of their respective sections are reviewed biennially.

5.2.4 Special Orders

A mechanism exists for the issuance of management instructions which have short-term applicability and which require dissemination. The plant Technical Specifications direct that these orders, among others, be established, reviewed, implemented and maintained. These instructions are written to provide direction for non-recurring events, special situations or other categories of a similar nature.

These are prepared at the appropriate management level and distributed to the affected organizations and personnel. Because of the unique nature of the contents of these instructions, they are automatically canceled, once implemented.

5.2.5 Temporary Procedures

---

[37] Changed from Maintenance and Construction to Generation Engineering.
[38] Added department, section and deleted staff groups.
[39] Added.
[40] Added.
[41] Changed from self-assessment to continuing review.
[42] Changed from self-assessment to continuing review.

Temporary Operating Instructions are issued, when required, as temporary procedures and are related to the performance of special tests or operations that are applicable for a short period of time. Procedures are issued for guidance during off-normal conditions and during special circumstances, as required.

The review and approval mechanisms for these temporary procedures or changes thereto are the same as those for normal operating procedures as described in sections[43] 5.2.2 and 5.2.15 which include the assignment of approval authority to management.

5.2.6 Equipment Control

Prior approval by Operations personnel is required for the release of equipment or systems for maintenance or repair. Normally, for interfacing station activities, Maintenance supervision, Instrument and Control supervision, and *Operations*[44] supervision meet beforehand to plan the work. They verify that equipment or systems can be released, determine the time required to do the job, and the safety considerations to personnel and the public. Essential elements of these details are documented in work permits.

When permission is granted to remove equipment from service, the equipment is rendered inoperative and protected for work. *Senior*[45] Watch Supervisors verify that the work is completed prior to readying the equipment or system for return to service.

Shutdown,[46] start-up *and normal operating procedures*[47] guide the preparation of equipment or systems *to support the applicable mode of plant operation for equipment or*[48] system maintenance. They include cognizance of such parameters as monitoring and control of reactivity, load reduction and cooldown rates, sequencing in activating or deactivating, provisions for decay heat removal and emergency operating situations.

Specific check-lists provide the assurance that pertinent factors are considered. Entries into closed systems or vessels are controlled. This extends to accountability for items taken in and out by maintenance personnel.

Temporary alterations which include such items as bypass devices, lifted electrical contacts, varying of setpoint limits, jumping, and opening of trip links require prior approval from, and are controlled by, *Senior*[49] Watch Supervisors acting in accordance with approved directions. Entries of temporary alterations[50] are documented.

Status of inspections in association with work on equipment or systems is controlled through utilization of procedures, travelers, work step lists, check lists, tags and labeling. Nonconformances associated with maintenance are documented on inspection reports. Acceptance of a disposition of nonconformances by Nuclear Quality Assurance is required prior to release of an item for service. Usually, tests are conducted upon completion of work as a pre-operational activity. Test requirements are determined by Test and Performance or *other assigned groups*.[51] Completion of tests are certified by *Senior*[52] Watch Supervisors.

---

[43] Changed paragraphs to sections.
[44] Changed the title Supervisor to supervision and from Senior Watch Supervisor to Operations supervision.
[45] Changed Operations to Senior.
[46] Deleted and subsequent.
[47] Changed from procedures to normal operating procedures.
[48] Added.
[49] Changed Operations to Senior.
[50] Revised for clarification. Deleted in log books
[51] Added.
[52] Changed Operations to Watch.

Upon completion of servicing work, operations personnel are responsible for verifying that the work is complete and that operating items are restored to prerequisite positions in accordance with applicable procedures.

5.2.7 Maintenance and Modification

Maintenance/modification of safety-related structures, systems, and components including the installation, inspection and testing of instrumentation, electrical equipment and structural concrete, structural steel, mechanical equipment and piping and the application of protective coatings, are controlled by Nuclear Power or Nuclear Projects procedures, as applicable, and are performed in a manner that assures a level of quality consistent with precedents set by the Architect Engineer and NSSS supplier or appropriately reviewed alternates to those precedents.

Pre-operational performance testing provides an added measure of confidence that systems and components will continue to perform their intended functions after maintenance or modification.

These activities are performed in accordance with applicable procedures, manuals, instructions, drawings, specifications and other documents that take into account, as appropriate, planning requirements, codes and standards, the levels of skills required to do the work, and the assurance that properly identified acceptable material is used. Preparation involves consideration of such factors as assigning responsibilities, identification of written instructions and scheduling and interfacing with other applicable operations activities. Included in the instructions are precautions to be observed, installation instructions, identification of equipment, procedures, travelers, step lists, check lists, inspection points, and cleaning, handling and housekeeping requirements, as applicable. Particular attention is paid to prerequisites such as assignment of personnel, assurance that proper documentation and materials are available, need for manufacturer's manuals and preparation for documenting results. Pre-installation activities extend to assuring that only properly accepted material is used, written instructions are available and work permissions have been granted.

5.2.7.1 Maintenance

A maintenance program to maintain structures, systems, and components at a quality level necessary for them to perform their intended function is in effect. Maintenance activities are planned, scheduled and accomplished in a manner consistent with safety considerations and plant Technical Specification requirements. In preparation for maintenance activities, such details as the use of approved material, need for special tools or equipment, safety precautions and detailed work instructions are considered.

Procedures involving maintenance of a recurring nature are contained in a maintenance procedure manual. These procedures may be revised as experience is gained. Preventive maintenance procedures contain maintenance frequency requirements for safety-related systems components.

Inspections and surveillance during maintenance, and repair work verify continued functional capability of equipment on the *Environmental Qualification*(EQ)[53] data base. When these inspections and surveillance show that the equipment does not meet established acceptance criteria the inspection results are reviewed by Nuclear Power Engineering and quantitatively evaluated to determine that age-related degradation has not compromised the ability of the equipment or system to perform its specified functions. Results of inspections and surveillance are also factored into future inspection intervals in order to change the frequency at which these inspections are conducted, thereby aiding in determining the qualified life of the equipment and its maintenance interval.

[53] Change EQ to Environmental Qualification.

Plant maintenance activities are carried out in the following manner:

The work order is the mechanism by which station personnel can identify and document conditions in the field which require corrective work. The initiator of the work order is responsible for the correctness of the information which he identifies, e.g., the nature of the condition which requires corrective work. Operations reviews all work orders to determine their validity and to approve their implementation.

Any employee of Con Edison discovering a deficiency on plant components initiates a work order to correct the deficiency or reports it to his supervisor. When an employee reports a deficiency to his supervisor, the responsibilities of the supervisor include facilitating processing of the deficiency via the plant computerized work order management system.

The following may authorize work orders:

- Vice President, Nuclear Power;
- Plant Manager;
- Department Manager, Operations;
- Department Manager, Maintenance;
- Section Manager, Instrument[54] and Control;
- Senior Watch Supervisor (in an emergency may authorize for operations manager); and
- *Work Week Manager.*[55]

Test and Performance reviews all work orders to determine testing requirements, including acceptance criteria, ensures that the test criteria address the actual work that was accomplished and assures that the component will be tested under conditions that simulate or actually meet normal operating conditions for that component.

Test and Performance is a *section*[56] consisting of a manager, test engineers and test supervisor(s) who define post-maintenance test requirements and supervise equipment testing. The review of work orders by Test and Performance constitutes an independent review in that Test and Performance reports to the Department Manager, *Site Engineering*[57] who is independent of the Plant Manager, *Nuclear Power Generation*[58] who is responsible for plant operation.

The review of work orders by Test and Performance normally occurs prior to the start of work, however, if after the start of work, the work scope changes (e.g., to suit field conditions), Test and Performance reviews the revised scope to determine any revised testing requirements.

Test and Performance identifies Post-Maintenance Testing (PMT) requirements on the work order. This is accomplished by entering them in the computerized work order management system. The manager of Test and Performance is responsible for supervising Test and Performance personnel to assure that the PMT requirements are accurately and completely entered in the system. Test and Performance also prepares and issues PMT procedures. Additionally, PMTs are reviewed by Operations Watch Engineers to assure that they are appropriate.

The Operations Department Manager[59] specifies on each work order whether Maintenance or Instrument and Control is responsible for the work. Questions involving the assignment of these responsibilities are resolved by managers of the respective groups, or their designees.

---

[54] Changed Instrumentation to Instrument.
[55] Added.
[56] Changed group to section.
[57] Changed from System Engineering and Analysis to Site Engineering.
[58] Added.
[59] Deleted or his designee.

For work managed by Nuclear Power, the *Department Manager*, Maintenance or the *Section Manager, Instrument* and Control,[60] as applicable, is responsible for the correctness of the work order and implementing documents, and:

- designating *the specific*[61] work group;
- updating work orders with any changes or additional information as required;
- preparing schedules in conjunction with operations and applicable work groups; and
- preparing implementing documents for the work order as required, and entering this information on the work order. The work implementing documents consist of the work order and one or more of the following depending on job complexity: checklists, steplists, procedures, sketches, drawings, etc.

The work implementing documents, developed by Maintenance or Instrument[62] and Control are reviewed for adequacy and correctness by a qualified person other than the preparer. This latter review constitutes an independent review.

In the case of other projects (ex. major capital projects) managed by Nuclear Projects, work verification packages are assembled by Nuclear Projects[63] Planners. The work verification packages are also reviewed for adequacy and correctness by a qualified person other than the preparer.

Test and Performance reviews the results of Post Maintenance Testing to verify that acceptance criteria have been satisfied and indicates this on the work order.

5.2.7.2 Modifications

When the work constitutes a modification to the plant, modification documentation is prepared by either *Design* Engineering or *Site Engineering* [64] as determined by the Department Manager, *Site Engineering*[65] in consultation with the *Department Manager, Design* Engineering[66], as necessary. This determination is based primarily on job complexity (e.g., scope and design impact) with the more complex jobs generally assigned to *Design* [67]Engineering.

Procedures are in effect for the control and implementation of these design activities. Examples of the subjects covered in the procedures are:

1. Responsibilities within the engineering organizational unit and its various disciplines;
2. Managing the flow of technical information among internal supporting disciplines such as Civil, Electrical and Mechanical within Design Engineering (externally supported design activities are controlled through procurement of subcontracted services as the need arises);
3. Rules for developing and reviewing concept and scope documents and preliminary design documents with appropriate station and installer organizations;
4. Control of the preparation, review, approval, release, and distribution of documents and their changes;
5. Rules concerning retention of design documents;
6. Design verification; and

---

[60] Added Department Manager and Section Manager, changed Instrumentation to Instrument.
[61] Added.
[62] Changed Instrumentation to Instrument.
[63] Deleted QC Coordinators/.
[64] Changed from Nuclear Power to Design and from System Engineering and Analysis to Site Engineering.
[65] Changed from System Engineering and Analysis to Site Engineering.
[66] Added Department Manager, Design.
[67] Changed Nuclear Power to Design.

7. Rules for development of design criteria, design concepts, detailed designs, integration of Field Engineering forces, and review by affected Nuclear Power Engineering disciplines as applicable to the scope of the particular modification.

An[68] engineer within the designated organization is assigned responsibility to prepare the modification documentation. The[68] engineer determines how the modification documentation should be developed and processed as one of the following:

- Modification (major) - a plant change that modifies plant design;
- Minor modification - a plant change where the replacement component results; in limited installation impact (e.g., no adverse seismic affect) and does not alter the system process or function; and
- Determination of Equivalency (DOE)- an evaluation to determine that a replacement component is an equivalent replacement and is suitable for installation.

Documentation developed for major modification includes, as applicable, the following:

- Design criteria;
- Concept and scope;
- Supporting calculations;
- Specifications, drawings;
- Prerequisites and co-requisites;
- Special test requirements, acceptance criteria;
- Flushing/cleaning requirements;
- Welding requirements; and
- Special precautions.

Minor modification documentation includes the above, as applicable, except that new design criteria are not established.

DOE documentation provides justification for a determination of equivalency.

Elements of the design process including design verification are identified in procedures. Some of the matters considered are:

1. Suitability of parts, equipment or processes for the application;
2. Compatibility of materials with each other and with the design environment;
3. Radiological controls;
4. Provisions for handling, storage, cleaning and shipping, as applicable;
5. Computations and calculations:
   a) Numerical accuracy;
   b) Consistency of results between alternate and original methods; and
   c) Identification of design assumptions.
6. Analytic methods;
7. Fire protection;
8. Determining the reasonableness of results in comparison to design bases;
9. Permissibility of qualification testing alternatives as a verification technique;
10. Reasonableness of outputs when compared to inputs;
11. Approval of vendor submittals;
12. Prerequisites;
13. Requirements for welding;
14. Evaluating safety significance to assure compliance with regulatory requirements;

[68] Deleted Discipline

15. Verification that pertinent quality provisions have been incorporated;
16. Rules for utilizing original Architect-Engineer and NSSS design details in plant replacement items, additions or modifications;
17. Rules for distribution of design details to other affected interfacing organizational units, which include Nuclear Power for comment or information;
18. Inservice Inspection and Testing requirements; and
19. Environmental Qualification of electrical equipment important to safety in accordance with the requirements of 10 CFR 50.49.

Inherent in these procedures are provisions for the control of documents and their changes. The modification documents carry revision level designations to assure that correct revision levels will be used in the work. For addition of new, complex systems, specification and drawing lists are prepared, issued and used. Procedures provide details for the maintenance, retention and storage of these design documents.

Some representative considerations accounted for in the formulation of modification procedures are:

1. Requirements of codes, standards, and regulatory documents;
2. Conditions affecting design such as pressure temperature, voltage, stress and seismic loads;
3. Functional and physical interfaces between systems;
4. Operating, maintenance, testing and inspection requirements, as applicable;
5. Process flow, equipment descriptions, material requirements and their compatibility;
6. Safety requirements;
7. Environmental, cleanliness and quality assurance requirements;
8. Performance characteristics;
9. Electrical layouts, cable and conduit schedules; and
10. Special installation requirements for environmentally qualified equipment. These may be contained on the Design Modification Drawings, Vendors' drawings, or in special instructions.

The modification documentation is prepared and signed by the [69]Engineer. Additionally, the modification documentation is reviewed and approved by a qualified Engineer other than the preparer. This additional review is to assure that the modification documentation is technically correct and that appropriate quality provisions (e.g., non-destructive examinations) are specified.

Affected plant *organizations*[70] perform critical reviews of the modification documentation. These include *Site Engineering*,[71] Operations, Training, Test and Performance, Computer Applications, and Environmental Qualification. Generally, these reviews verify that modification documentation includes adequate technical guidance and criteria, evaluate the impact of the modification in their respective areas of responsibility, support determination of post-modification testing requirements, assure consistency with the plant Technical Specifications, assure that applicable safety evaluation requirements have been satisfied and provide for radiological control requirements.

After the modification documentation is issued for implementation, supplemental work verification packages (WVP's) are assembled by Nuclear Projects[72] Planners. These WVP's consist of forms, checklists, etc. and information which, when compiled and completed will provide objective evidence of the proper completion of the work. The WVP's contain, as applicable, the following types of records and information:

1. Summary of scope of work as identified in the Engineering modification package;
2. An index of records included in the WVP;
3. Weld information forms;
4. Electrical disconnect and reconnect forms;

---

[69] Deleted discipline.
[70] Changed functions to organizations.
[71] Changed from System Engineering and Analysis to Site Engineering.
[72] Deleted QC Coordinators/.

5. Cable pull slips;
6. Cable tray inspection checklists;
7. Conduit installation records;
8. Test data records;
9. Torquing records;
10. Grouting checklists;
11. Material used forms;
12. Cleanliness records;
13. Work completion walkdown records; and
14. WVP content checklist;

The Nuclear Projects[73] Planners specify those work steps to be verified and signed off by Field Supervisors and those independent hold points or inspection points that will be performed by *Nuclear Quality Assurance QC Inspectors.*[74] The WVP's are reviewed and approved by the responsible Project Superintendent to assure the WVP is consistent with the scope of the modification. Nuclear Projects[75] Planners report to Nuclear Projects, project Superintendents. [76]

In addition to the QC functions performed for Nuclear Projects[77], Nuclear Quality Assurance (an organization independent of Nuclear Projects), will conduct overview[78] surveillance and/or audits of selected activities of Nuclear Projects. The overview[76] surveillance or audits will be conducted when plant modifications are being implemented on a nominal quarterly basis or more frequently. *Additionally, where special qualifications are required to perform examinations (e.g., non-destructive examinations) qualified vendor contractor inspection personnel approved by Nuclear Quality Assurance in accordance with Section 5.2.18 of this program may perform these activities for Nuclear Projects.*[79]

Nuclear Power *Instrument*[80] and Control prepares work procedures, as necessary, to implement modifications to installed instrumentation.

The work documentation is reviewed by personnel other than the documentation preparer to assure that it is complete and correct.

Verification of work during and after installation includes performance of inspections, tests, when applicable, non-destructive examination, recording as-constructed information, status indication, pressure testing, when applicable, and by other appropriate means.

Test and Performance is responsible for *the preparation of* [81]post-modification test procedures, evaluating test results, and informing Operations personnel of acceptability of the test results. *Some tests may be prepared by Computer Applications or Reactor Engineering when modifications affect their systems.*[82]

Records of the completed work package are filed. Examples of the types of records are the job folder, results of inspections or tests, modification documents, maintenance work order, reference to other documents and close-out documentation. Similar controls apply to preventive, routine and corrective maintenance, as appropriate.

---

[73] Deleted QC Coordinators/ and added Nuclear Projects.
[74] Changed QC Coordinators/Planners to *Nuclear Quality Assurance QC Inspectors.*
[75] Deleted QC Coordinators/.
[76] Deleted sentence.
[77] Deleted QC Coordinators/Planners changed sentence to reflect inspection by Nuclear QC.
[78] Deleted inspections,.
[79] Added.
[80] Changed Instrumentation to Instrument.
[81] Changed preparing to the preparation of.
[82] Added.

5.2.8 Surveillance Testing and Inspection Schedules

Surveillance testing and inspections, including in-service testing of pumps and valves, are the responsibility of Nuclear Power and are accomplished in accordance with the surveillance requirements in the plant Technical Specifications and Inservice Inspection and Testing Program. Included in these activities are: reactor coolant system surveillance, reactor coolant system integrity testing, containment tests, engineered safety features, emergency power system periodic tests, main steam stop valves, auxiliary feedwater system, reactivity anomalies, environmental monitoring surveys, and radioactive materials. Upon completion of testing, surveillance test results and inservice test results are reviewed by the group responsible for the test, e.g. Test and Performance, *Operations, Computer Applications or Reactor and Fuel Engineering*.[83] This review consists of:

1. Verifying that the operability and overall acceptance criteria were satisfied;
2. Ascertaining that data were entered as required;
3. Verifying the test was done on schedule;
4. Trend analysis, as appropriate;
5. Evaluating condition(s) adverse to quality; and
6. Evaluating data for compliance with Plant Technical Specification requirements.

The NDE portion of the Inservice Inspection program is the responsibility of Nuclear Quality Assurance and is based on ASME Code Section XI. NDE personnel will be qualified to SNT-TC-1A 1975 as per our commitment to RG 1.58, Rev. 1, September 1980. However, NDE personnel who specifically perform ASME XI inservice examinations shall be qualified in accordance with the applicable edition of ASME XI as determined by Code of Federal Regulations 10CFR50.55a(g). As required, baseline data are gathered to permit a comparison of any changes occurring as a result of plant operations. The areas requiring inspections and the overall schedule are consistent with the requirements of the plant Technical Specifications. Test and Performance maintains inservice testing records and Nuclear Quality Assurance maintains NDE inservice inspection records.

5.2.9 Plant Security and Visitor Control

A comprehensive security and visitor control program has been established, including measures to thwart attempted sabotage. Procedures have been developed by Nuclear Power which supplement features and physical barriers designed to control access to the plant and, as appropriate, to vital areas within the plant.

Measures have been established by the Department Manager, Site Protection, to deter or discourage penetration by unauthorized persons, to detect such penetrations should they occur, to apprehend in a timely manner either unauthorized persons or authorized persons acting in a manner constituting a threat of sabotage, and to provide for appropriate authorities to take custody of violators. The means by which plant security and visitor control are enforced by both security and operating personnel include measures for physical and administrative control of access to the plant site or portions thereof, selecting and retaining reliable personnel and detecting aberrant behavior, monitoring the status of vital equipment and facilities, augmenting security in the event of actual or potential threats to plant security and designing features of the plant specifically for security purposes or features which, by their nature, reduce the vulnerability of the plant to sabotage.[84]

The security program provides for the identification of the following three security areas:

1. <u>Con Edison-owned property</u> under the administrative and procedural control of the Department Manager Site Protection and suitably marked by signs and other means which

[83] Added Operations, Computer Applications or Reactor and Fuel Engineering.
[84] Deleted attacks.

provide reasonable assurance that persons entering the area are aware they are on Con Edison property;

2. A protected area administratively and procedurally under the control of the Department Manager, Site Protection affording clear fields of view of its perimeter; and
3. Vital areas isolated from non-vital equipment and facilities to the maximum extent practicable to limit access to a minimum number of authorized persons. As part of the security program, a list of these vital areas is maintained. Vital areas are protected against intrusion by unauthorized personnel. These areas are administratively and procedurally under control of the Department Manager, Site Protection, in conjunction with the Plant Manager, and the Department Manager, Operations.

The Department Manager, Site Protection has developed a Security Force Manual, approved by the Station Nuclear Safety Committee and is responsible for its maintenance, up-dating, and distribution to authorized individuals and organizations.

Operations personnel form a part of the security force. Accordingly, the *Senior*[85] Watch Supervisor, the Support Facilities Supervisor, Reactor Operators, Nuclear Plant Operators and other operating personnel are assigned various authorities and responsibilities forming a part of the security program *including the detection and reporting of aberrant behavior.*[86]

The Department Manager, Site Protection is responsible for developing and properly locating signs and notices relating to security for training and drills and for submitting reports relating to security to the *General Manager, Site Services.*[87]

The Vice President, Nuclear Power has overall responsibility for the security program and its state of readiness.

5.2.10 Housekeeping and Cleanliness Control

Control procedures for housekeeping are prepared by Nuclear Power. These procedures encompass activities related to the control of cleanliness of facilities, materials and equipment; fire prevention and protection, including disposal of combustible material, radioactive contamination control; storage of solid radioactive waste.[88]

Procedures are prepared for and particular attention is given to work and storage areas where important items are handled and stored to preclude damage or contamination. The Plant Manager provides for separate controlled storage areas, and issue, use and return of excess Class A materials. Procedures prepared by Nuclear *Power Generation*[89] are used to verify control of the cleanliness of open primary systems. The Vice President, Nuclear Power establishes policy regarding work permits and provisions for the radiological as well as conventional health and safety of all employees. The Plant Manager establishes policy for removal of equipment and material from the controlled area and its shipment, and the method of handling solid radioactive waste material for its removal from the controlled area at Indian Point Station.

Fire protection and prevention procedures are prepared and implemented by responsible Nuclear Power personnel. These procedures include provisions for fire fighting and fire watches during and immediately following welding, enforcement of good housekeeping practices, building and maintenance care and

[85] Changed Operations to Senior.
[86] Added.
[87] Changed Department Manger to General Manager.
[88] Deleted , etc.
[89] Changed to Power Generation.

outdoor housekeeping. Periodic inspections and surveillance are performed by Nuclear Quality Assurance personnel. Reports of results are issued to higher management.

5.2.11 Corrective Actions

Measures have been established which ensure that conditions adverse to quality which may occur during work, e.g., maintenance, are promptly identified in nonconformance reports or significant nonconformance reports and corrected. In the case of significant conditions adverse to quality, the cause of the condition is determined and corrective action taken and appropriately documented and reported.

The action addressee on nonconformance reports is responsible for either correcting the nonconformance or designating the organization responsible for completing the necessary corrective actions. The management of these designated organizations is responsible for taking the necessary corrective actions.

Nuclear Quality Assurance, is responsible, via audits, for verifying that corrective actions resulting from non-conformance reports are implemented at the site.

When significant nonconformance reports are issued, Nuclear Quality Assurance prepares and distributes a quarterly report indicating the status of all unresolved significant nonconformance reports. This report is routed to appropriate management concerned with correcting the deficiency. The distribution of the quarterly status report of unresolved non conformance reports assures that the identification of significant conditions adverse to quality and corrective actions initiated are documented and reported to appropriate levels of management.
[90]

When corrective action has been completed, this will be identified on the report and forwarded to Nuclear Quality Assurance, by the action addressee. Corrective action shall include determination of the cause of the nonconformance and the measures necessary to preclude repetition.

Nuclear Quality Assurance reviews the action taken and takes the initiative to resolve disputes and disagreements, if any. After agreement has been achieved, Nuclear Quality Assurance completes the report by noting concurrence. Copies of completed reports are then routed to the action addressee and other appropriate Con Edison organizations.

Conditions adverse to safety found during operations are reported as required by the plant Technical Specification. This report includes a description of the condition, its cause and corrective action taken or recommended. The distribution of this report includes the Nuclear Facilities Safety Committee.

5.2.12 Plant Records Management

Con Edison's policy is to maintain documentary evidence of the quality of items and activities affecting plant safety. Consequently, a system for records preparation and retention, as necessary, has been established.

Quality assurance records located in the Nuclear Records Management Center, together with other files of other Con Edison organizations and at contracted storage facilities are retained for periods specified in the Indian Point Records Type List.

Nuclear Quality Assurance maintains records which include certain personnel qualification records, and nonconformance reports. Operating logs are maintained by Operations. Test procedures and results are

---

[90] Deleted first two sentences of paragraph. Repeat of same information in second paragraph of this section.

maintained by Test and Performance. Material Procurement maintains records of receipt inspections results and backup data. Inspection reports include the signature of the inspector, the type of observation, the results, the acceptability, and the action taken in connection with any deficiencies noted.

Documented procedures establish the requirements and responsibilities for record maintenance and retention subsequent to completion of work. The records are filed and maintained to minimize deterioration, damage and to prevent loss.

5.2.13 Procurement and Materials Control

Measures have been established for procurement documentation and control of materials and components which affect plant safety, including spare and replacement parts. Procedures and appropriate instructions assure that purchased materials and components associated with safety-related structures or systems are purchased to appropriate specifications and codes; produced or fabricated to proper requirements; packaged and transported in a manner that will maintain their quality; properly documented, completed, identified and stored; and correctly controlled to assure the identification, segregation, and disposition of nonconforming material. These procedures, as appropriate, provide for procurement document preparation, review and change control; selection of procurement sources; bid evaluation and award; control of supplier's performance, verification of material quality, control of nonconforming items, acceptance of items and services, maintenance of quality assurance records; evaluation of the procurement process and corrective action.

Procurement documents include, as appropriate, provisions for the scope of work to be accomplished; technical requirements; quality assurance program requirements; a statement of right of access to a supplier's plant, facility and records; special quality assurance requirements; documentation and, as applicable, provisions for processing nonconformances.

5.2.13.1 Procurement Document Control

Measures are provided for a procurement document control system which assures that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality are suitably included or referenced in the purchase orders for material, equipment and services, whether purchased by Con Edison or by vendors or sub-vendors. Nuclear Quality Assurance identifies quality assurance program requirements to be included or referenced in requests for quotations and purchase orders. These quality assurance program requirements are imposed on a vendor by means such as specifying applicable provisions of Con Edison's quality assurance specifications, the approved vendors quality assurance manuals, pertinent Code quality assurance requirements, such as, ASME Section III, ANSI N45.2 or unique requirements for the specific purchase order.

For procurement of items associated with plant modifications, Nuclear Power Engineering, Nuclear Power or Nuclear Projects as applicable, identify technical and regulatory requirements to be included or referenced in procurement documents.

When Nuclear Projects manages a project (e.g. major capital projects), Nuclear Projects[91] Planners prepare procurement documentation incorporating commercial requirements and the specified technical and regulatory requirements. Procurement documents are reviewed by Nuclear Power Material Procurement to assure they include technical requirements and identify proper supplementary quality requirements.[92] This procurement process is generally used for material which is specified in Nuclear Power Engineering electrical and mechanical material lists.

---

[91] Changed ex. to e.g. and deleted QC Coordinators/.

[92] Revised to clarify Nuclear Power Material Procurement not Purchasing performs these activities.

[93]

Where Nuclear Power manages the project, Nuclear Power prepares the procurement documentation incorporating technical, regulatory and quality requirements. In these cases the documentation is reviewed by Material Procurement to assure that it is[94] complete and adequate.

As a minimum the review of procurement documents is accomplished by personnel other than the preparer.

Quality assurance requirements are imposed on contractors by specifying applicable Code quality assurance provisions such as ASME Section III, ANSI N45.2 or unique quality requirements for the specific requisition.

Purchasing, Nuclear Power Material Procurement or Nuclear Projects, as applicable, evaluates bids and proposals for commercial content. Vendor exceptions to technical requirements are evaluated by Nuclear Power Engineering.[95] Vendor exceptions to quality assurance program provisions which have been stipulated by Nuclear Quality Assurance as a result of source evaluation activities shall be evaluated by Nuclear Quality Assurance. If the bidder or proposer takes no exceptions to the specifications and requirements, the buyer may secure purchase authorization.

Vendors are evaluated and approved prior to issuance of a purchase order to provide assurance that the vendor is capable of manufacturing and delivering a product *or service*[96] conforming to the requirements of applicable purchase specifications. Vendor approval documentation is maintained and updated, and purchase orders sent only to the approved vendors. In cases, however, where commercial grade items or services are procured and Consolidated Edison assumes singular responsibility for verifying the acceptability of the item or service for use, the items or services may be procured from vendors who have not been evaluated or approved. After a purchase order is issued, the vendor may be reviewed on a surveillance basis during the manufacturing stage to assure conformance to specification requirements.

Upon receipt of purchase authorization, the cognizant buyer releases the requisition along with other appropriate documents e.g. Standard Terms and Conditions, for preparation of the purchase order. Copies of the purchase order are made available to Nuclear Quality Assurance and the requisitioning activity.

If an outstanding purchase order must be modified, a properly authorized modification to the Purchase Requisition must be prepared and reviewed. Copies of modified purchase orders are distributed to those who received copies of the original purchase order.

5.2.13.2 Control of Purchased Material, Equipment and Services

Measures have been established which assure that purchased items and services, whether purchased directly or through contractors, conform to procurement documents. These measures include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor, inspection and audit at the source and examination of items upon delivery.

Nuclear Power[97] Material Procurement, Nuclear Power Engineering, and Nuclear Quality Assurance evaluate the capabilities of approved vendors. Nuclear Power Engineering evaluates the overall manufacturing capability of the vendor, including *its*[98] particular technical ability to produce the item,

---

[93] Deleted paragraph.
[94] Changed they are to it is.
[95] Deleted System Engineering and Analysis, as applicable.
[96] Added.
[97] Changed Purchasing or to Nuclear Power.
[98] changed his to its.

component *or services*[99] delineated in the specification. Purchasing or Material Procurement evaluates the vendor's financial and administrative capabilities. Nuclear Quality Assurance evaluates the vendor's quality assurance program. The Nuclear Quality Assurance review includes consideration of the following:

1. Quality assurance personnel qualifications;
2. Review and control of design documents;
3. Documented manufacturing procedures;
4. Quality assurance procedures, acceptance criteria and calibration practices;
5. Quality assurance records and their retention;
6. Vendor receipt inspection; and
7. Quality assurance requirements imposed by the vendor on his subcontractors.

Evaluation of vendors by Nuclear Quality Assurance may also be accomplished by reviewing vendor evaluation reports prepared by other licensed U.S. nuclear utilities which participate in industry efforts such as those coordinated by the Nuclear Utility Procurement Initiative Committee (NUPIC).[100]

For a vendor to be maintained as an approved vendor, an evaluation of that vendor is made at least once every five years. Additional reviews of a vendor's facilities or performance may be conducted by Nuclear Quality Assurance on a more frequent basis. During the course of production, manufacturing or service activities, surveillance of the vendor's performance may be conducted.

Vendor surveillance plans are prepared for complex equipment. The surveillance plans identify the areas such as tests and records to be reviewed. The applicable purchase order, including the specifications and drawings, forms the basis for determining the areas for review.

Material procured by Nuclear Power is received at the Indian Point offsite Cortlandt Warehouse receiving and storage facility where it is inspected by Material Procurement inspectors in accordance with Material Procurement written instructions.
[101]

Materials procured for Nuclear Projects are received and inspected by Nuclear Power Material Procurement inspectors and stored in the Cortlandt Warehouse *or storage facilities on-site.* [102]

Documentary evidence that material and equipment conform to the procurement requirements is available at the plant site prior to use of such material and equipment. Receiving inspection written instructions require, as appropriate, checking that objective evidence of quality required from the vendor has been received. Results of receiving inspections are documented on a checklist.

This documentation includes, as a minimum, the identity of the inspector, the type and results of inspection, the acceptability, and the action taken in connection with any deficiencies noted.

The status of accepted material is identified by tags, stickers or other approved methods which provide suitable traceability. Nonconforming material is tagged until the nonconformance is dispositioned. If the disposition is to reject the material, the tag is maintained on the material until the rejected material is returned to the supplier or scrapped. Nonconformance and corrective actions are controlled in accordance with section 5.2.14.

Accepted components or materials retain their status identification until they have been satisfactorily installed and the installation check has been completed or until it is necessary to remove the status identifier

---

[99] Added services.
[100] Added Paragraph to address NUPIC.
[101] Deleted paragraph on receipt inspection by Nuclear Projects.
[102] Deleted alternatively and added storage facilities on-site.

for installation purposes. Records of control of purchased material, equipment and services are maintained in accordance with 5.2.12.

5.2.13.3 Identification and Control of Materials, Parts and Components

Measures have been established for the identification and control of material, parts and components. Procedures are provided by Nuclear Power, Nuclear Power Engineering, Material Procurement and, as appropriate, other involved organizations which insure that only accepted items are used and installed and, where applicable, relate an item to an applicable drawing, specification or other pertinent technical document. Identification marking is applied by suppliers and/or Con Edison organizations in a clear, unambiguous manner which does not adversely affect the function of the item. When groups of items are sub-divided, identification marking is appropriately transferred to smaller groups or individual items by Central Stores storeroom personnel, Nuclear Power or Nuclear Projects personnel except for indication of inspection status identification ("accept" tags, etc.) which is transferred by *Nuclear Power* Material Procurement, Nuclear Quality Assurance personnel, or Nuclear Projects, [103] Project Support personnel.

Where required for receipt identification and traceability purposes, materials and shipping containers bear specific marking prior to use at Indian Point. Where such identification by the vendor is deemed necessary, the vendor is instructed by the purchase order documents concerning the identification required. In cases where identification is to be done by personnel at Indian Point, written instructions are issued to accomplish the identification.

Shipping containers are identified and marked by the vendor in accordance with instructions included in the purchase order document in order to permit positive identification. Component or material identification numbers may also be required for traceability and these requirements are also specified by the purchase order. Where it becomes necessary to provide identification of material or components, detailed marking procedures are established. These procedures, if applicable, are prepared by Nuclear Power Engineering [104]and are reviewed by a qualified individual other than the preparer. Care is taken to assure that marking methods will not adversely affect the material or design characteristics. For example, marking materials containing sulfur and low melting point elements, such as, lead and mercury are not used for identifying nickel alloys and stainless steel.

Care is also taken to apply the markings prior to modification or cutting operations to assure that traceability is not destroyed or lost. Nuclear Quality Assurance is responsible for verifying that marking performed at Indian Point is accomplished in accordance with approved procedures.

During the course of maintenance, repair, or modification work, it will be necessary for traceability purposes to identify new or repaired weld joints. This identification is accomplished in accordance with procedures approved by Nuclear Power Engineering.

Nuclear Power Engineering provides unique weld joint numbers for all welds shown on single line diagrams which carry piece numbers traceable to bills of material and weld joint numbers for piping fabrication and installation at Indian Point.

Nuclear Power or Nuclear Projects, as applicable, is responsible for assuring that unique weld joint identification numbers are provided in accordance with Nuclear Power Engineering's numbering system or contractor's equivalent. Nuclear Power or Nuclear Projects, as applicable, is responsible for assigning unique weld joint numbers for other welds required during installation and site fabrication including field run piping work and shall also be responsible for permanent weld identification.

---

[103] Added Nuclear Power and deleted QC Coordinators/Planners.
[104] Deleted Nuclear Power, or Nuclear Projects.

Nuclear Power or Nuclear Projects, as applicable, shall assure that weld joint identification is accomplished by identifying the welds on piping sketches or drawings prepared by Nuclear Power Engineering, Nuclear Power, Nuclear Projects, or contractors, as applicable, or where precise traceability cannot be assured by these methods, by permanently marking the weld at or near the weld joint. Where pipe size, accessibility or other limitations make physical marking impractical, metal tags shall be secured at or near the weld joint. The tags shall be permanently marked with weld identification information including directional information if tags are offset from the weld. Nuclear Power or Nuclear Projects, as applicable, shall provide "as constructed" information to Nuclear Power Engineering in writing for updating engineering drawings.

Adequate records of identification and control are retained for periods in accordance with section 5.2.12 above.

5.2.13.4 Handling, Storage and Shipping

Measures have been established which provide control of handling, storage and shipping. These measures include, where applicable, provisions for cleaning, packaging and preservation of material and equipment in accordance with appropriate instructions, procedures, drawings or other documents to prevent damage, deterioration and loss. Included are measures for very expensive, critical, sensitive and perishable items. Nuclear Power Engineering and other organizations, such as Nuclear Power or Nuclear Projects, establish or reference requirements for handling, storage and shipping. These requirements are identified in applicable requisitioning/procurement documents.

Items are packaged in a manner adequate to protect them against corrosion, contamination, physical damage or any effect which would lower their quality or cause the item to deteriorate during shipping, handling and storage. The specific requirements for packaging, etc., are determined by the procurement document review system and the requirements identified or referenced in the procurement document by Nuclear Power, Nuclear Projects and Nuclear Power Engineering.

The degree of protection varies according to storage condition and duration, shipping environment and handling conditions. Items are protected against damage during loading, shipping, and handling by the supplier, shipper, and appropriate Con Edison organization. Modes of transportation are consistent with the degree of protection required and with the packaging methods employed.

Items procured by Nuclear Power are received at the Indian Point offsite Cortlandt Warehouse receiving and storage facility. Central Stores personnel at the Cortlandt Warehouse receive and store items for use at the site. Items procured for Nuclear Projects are received and stored at on-site facilities or the Cortlandt Warehouse.

Upon their arrival, items are checked by Material Procurement[105] for damage and for general compliance with purchase order requirements or internal documents where items are manufactured by Con Edison. Results of inspection are documented in a receipt inspection checklist by the receiving inspector. Required marking is verified to provide positive identification during receiving, storage and installation.

Appropriate records relating to packaging, shipping, receiving, storage and handling are maintained by Nuclear Power in accordance with Section 5.2.12.

Storage is accomplished in a manner sufficient to minimize the possibility of damage or lowering quality due to corrosion, contamination, deterioration or physical damage from the time an item is stored until the time the item is removed from storage and installed at its final location. Storage requirements are based on

[105] Deleted or Nuclear Projects QC personnel.

supplier recommendations, Nuclear Power requirements and/or instructions supplemented, as appropriate, by Nuclear Power Engineering recommendations.

Results of storage examination and inspections are documented and deficiencies corrected in accordance with established Nuclear Power or Nuclear Projects procedures. During storage, appropriate care is exercised by personnel to maintain item integrity. Central Stores or Nuclear Projects, as applicable, is responsible for handling items. Nuclear Power, Nuclear Projects and Central Stores maintain handling equipment in accordance with appropriate procedures, methods and instructions.

As appropriate, handling instructions and procedures have been established by Nuclear Power, Nuclear Projects and Nuclear Power Engineering for items requiring special handling. As appropriate, hoisting equipment used for handling is initially certified by the manufacturer. Except for test purposes, hoisting equipment is not loaded beyond rated load as certified by the manufacturer.

Safety requirements for material hoists are adhered to by Nuclear Power, Nuclear Projects, Maintenance and Construction and Central Stores. Re-rated equipment is given a dynamic load test over the full range of the lift. Normally, the test weight used in temporarily re-rating hoisting equipment for special lifts is at least equal to 110% of the lift weight.

Records pertaining to packing, shipping, receiving, storage and handling, including procedures, reports, personnel qualification, test equipment calibration, nonconformances and inspection and examination are prepared and maintained by Nuclear Power and Central Stores,[106] in accordance with the provisions of Section 5.2.12 and applicable guides and regulatory requirements.

5.2.14 Nonconforming Items

A system, including appropriate instructions, has been established for identifying, documenting, segregating and dispositioning nonconformances. This system provides for notification of affected organizations, for review and acceptance, rejection, repair or re-work of nonconforming items and establishes the responsibilities for the disposition of nonconforming items. This system also provides for identifying an item as nonconforming and controlled, as accepted "as is," as scrap or as held for further disposition. This system provides for documenting the acceptability of nonconforming items which have been repaired, reworked or used "as is."

Incoming items are tagged as received. The items are receipt-inspected in accordance with documented instructions by inspectors in Material Procurement. Items which are acceptable are given an "accept" tag, sticker, etc. and put in separate locked storage. Items which cannot be accepted are "hold" tagged and stored in segregated locked storage to await disposition. Items "hold" tagged but too large for segregated, locked storage or indoor storage are suitably identified to prevent their use. Items which are to be scrapped are also "hold" tagged and kept in separate locked storage until disposed of. Only items which have been properly receipt inspected and accepted can be used. Items which do not meet acceptance criteria are evaluated for disposition. Material Procurement or Nuclear Projects, as appropriate, prepares a nonconformance report. The report identifies the nonconformance and recommends corrective action to the organization (action addressee) responsible to initiate action or resolve the nonconformance. Copies are forwarded or made available to affected organizations, such as Nuclear Power, Nuclear Quality Assurance, Nuclear Power Engineering and Purchasing. Nonconforming items are accepted, rejected, repaired or reworked in accordance with documented procedures specified by the organizations involved in resolving the deficiencies identified.

---

[106] Deleted Nuclear Projects and deleted etc.

When significant nonconformances are identified, Nuclear Quality Assurance personnel, or other personnel performing quality assurance functions (e.g. Test and Performance personnel),[107] as applicable, investigate and initiate a significant nonconformance report. This report is used to document significant nonconformances with specified quality requirements when found during plant testing, or plant modification, maintenance and repair activities.

The significant nonconformance report identifies the deficiency and recommends corrective action to the organization (action addressee) responsible to initiate action or resolve the deficiency. Copies are forwarded to other affected organizations such as Nuclear Power *Material Procurement*, Nuclear Quality Assurance, Nuclear Power Engineering[108] or contractors. Non-conforming items are accepted, rejected, repaired or reworked in accordance with documented procedures specified by the organizations involved in resolving the deficiencies identified. Items, which have been reworked or repaired, are reinspected and/or retested in a manner identical to the original inspection and/or test or in an alternate manner approved by Nuclear Power, Nuclear Projects, Nuclear Quality Assurance *and*[109] Nuclear Power Engineering, as applicable. Significant plant events, including equipment malfunctions, are reviewed by SNSC. Additionally, systematic analyses of equipment malfunctions are accomplished by *Site Engineering.*[110] Results of the analyses including any recommended actions are documented and submitted, as a minimum, to the manager of the affected organization. The results of the analyses are also reviewed quarterly by a committee of Senior Management including the Vice President, Nuclear Power; *Vice President, Generation Engineering*; Department Manager, *Site Engineering*; Plant Manager, *Nuclear Power Generation*; and, *General* Manager, Nuclear Quality Assurance *and Oversight.* [111] Analysis of trends may also be initiated independently by Nuclear Quality Assurance as part of its audit review program.

5.2.15 Review, Approval and Control of Procedures

The administrative controls and quality assurance program provide measures, which control and coordinate the approval and issuance of documents, including changes there to, *and that*[112] prescribe activities affecting quality. These documents include those which describe organizational interfaces or which prescribe activities affecting safety-related structure systems or components. These documents also include operating and special orders, operating procedures, test procedures, equipment control procedures, fire protection procedures, emergency procedures, maintenance or modification procedures, refueling and material control procedures. These are in the form of documents such as station administrative orders, administrative directives, Nuclear Quality Assurance operating procedures, Purchasing, Nuclear Power Engineering and *Nuclear Projects*[113] procedures and corporate instructions.

The administrative controls and quality assurance program requires that activities affecting quality be prescribed by documented instructions or procedures of a type appropriate to the circumstances, and accomplished in accordance with these instructions or procedures.

The total program definition is reviewed by Nuclear Quality Assurance at least every two years to assure continued program adequacy.

Procedures or instructions are reviewed by other than the originating individual. Included in the review organizations are Nuclear Power, Nuclear Power Engineering, Nuclear Projects, Purchasing, Nuclear Quality Assurance, the Station Nuclear Safety Committee and the Nuclear Facilities Safety Committee. The

---

[107] Deleted NDE
[108] Added Material Procurement and deleted Purchasing.
[109] Changed or to and.
[110] Changed System Engineering and Analysis to Site Engineering.
[111] Added Vice President, Generation Engineering and changed System Engineering and Analysis to Site Engineering, added Nuclear Power Generation, changed Department to General, added and Oversight,
[112] changed which to and that
[113] Changed from Maintenance and Construction to Nuclear Projects.

Station Nuclear Safety Committee reviews procedures or instructions *and changes to procedures or instructions that change the its' intent*[114] to verify that such changes do not constitute an unreviewed safety question as defined in Section, 10CFR50.59. Following an unusual incident during operations, testing, an unexpected transient, significant operator's error or equipment malfunction or modification of a system, applicable procedures or instructions are reviewed by appropriate individuals or organizations. Changes to procedures or instructions are reviewed and approved by the appropriate organization. The system for review, approval and control of instructions or procedures provides for the identification of individuals and organizations involved, identification, as appropriate, of documents to be used in performing the activity, coordination and control of interface documents and the maintenance and updating of distribution lists.

These instructions or procedures include, as appropriate, quantitative or qualitative acceptance criteria for determining that certain activities have been satisfactorily accomplished. These administrative controls and quality assurance program establishes measures for controlling the issuance of documents such as procedures or instructions, including changes thereto, which prescribe activities affecting quality. These measures assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed.

Each organization participating in this administrative controls and quality assurance program identifies to Nuclear Quality Assurance administrative documents judged necessary to implement the administrative controls and quality assurance program. The organizations responsible for these documents include Nuclear Quality Assurance on distribution as each is issued or changed. Nuclear Quality Assurance in a timely manner, reviews these documents for adequacy. In addition, Nuclear Quality Assurance maintains an index of documents that define the basic structure of the administrative controls and quality assurance program.

5.2.16 Control of Measuring and Test Equipment

Measuring tools, gauges and test equipment used at the site on items which affect plant safety are controlled and recalled for calibration at prescribed intervals.

Nuclear Power, Nuclear Projects and Nuclear Quality Assurance, as appropriate, maintain required standards, conduct calibrations, adjustments, and approve calibration procedures.

Nuclear Quality Assurance, Nuclear Projects and Nuclear Power maintain records of measuring and test equipment under their control. These records include:

1. Identification number;
2. Description of the item;
3. Manufacturer's name and model number;
4. Calibration frequency; and
5. Reference to method or procedure.

Only after items are listed on the measuring and testing list can they be used on Class A systems. Each measuring tool, gauge, and test equipment bears a tag or a sticker which indicates the next calibration due date.

Calibration requirements are based on the type of equipment, usage, and any other conditions affecting accuracy control requirements.

Calibrations are made against certified measurement standards which have a known relationship to national standards where such standards exist. Where no such standards exist, the basis for calibration is

[114] Deleted changes to and added and changes to procedures or instructions that change the its' intent.

documented. The accuracy of each calibrating standard is at least equal to the accuracy requirement for the equipment being calibrated. If called for by engineering specification or drawing or other written instruction, calibrating standards of a specified greater accuracy will be used.

Discrepancies discovered in examination or test equipment are reported in accordance with procedures for reporting nonconformances and corrective actions. A documented review is initiated of all work accomplished with the equipment since the previous calibration. To determine if applicable requirements have been satisfied, a review is conducted of all material, components and equipment checked with discrepant examination or test equipment since its last acceptable calibration or periodic check.

Nuclear Quality Assurance or Nuclear Projects[115] Planners, as applicable, issue a nonconformance report if required.

5.2.17 Inspections

Programs for inspection of items and activities affecting safety have been established and are implemented by personnel reporting to Nuclear Power Material Procurement, Test and Performance, Nuclear Quality Assurance and qualified[116] contractors working under their direction, or by other properly authorized personnel.

For plant maintenance and modification, examination, checks and inspections are normally accomplished by supervisors responsible for the work. When independent examinations are deemed necessary the examinations are accomplished by personnel who did not perform the work and who did not directly supervise the work.

Quality requirements, including inspection requirements, are established either by Nuclear Power Engineering during development of modification documents, or Nuclear Projects or Maintenance during development of work instructions. Nuclear Quality Assurance and other organizations (e.g. Test and Performance) conduct independent inspections to verify compliance as specified in work instructions.

Work inspection instructions identify the inspections, hold points and documentation required for a job. For large and complex work, travelers or other documentation, e.g. modification implementing procedures, are issued by the Nuclear Projects or Nuclear Power. The documentation identifies the operations to be performed on an item after it is drawn from storage. Mandatory independent inspection hold points are also identified on the documentation, as applicable.

The *General* Manager, Nuclear Quality Assurance *and Oversight* has the authority to order cessation of work where continuation of work would lead to unacceptable conditions. Work may be resumed if approved by the Plant Manager or management levels above the *General* Manager.[117]

The inspecting organizations maintain records of required independent inspection activities.

5.2.18 Control of Special Processes

Measures have been established and documented which assure that special processes are accomplished under controlled conditions employing appropriately qualified personnel and procedures.

Nuclear Power Engineering prepares in-house welding procedures and acceptance criteria. Maintenance and Construction *with the review of Design Engineering*[118] qualifies welding procedures and personnel to applicable ASME Codes and maintains appropriate records in accordance with ASME Code Section IX.

---

[115] Deleted QC Coordinators/.
[116] Deleted Maintenance, Instrument and Control, and Nuclear Projects and added qualified.
[117] Changed from Department Manager to General Manager added and Oversight.

Welding materials are specified, purchased, receipt inspected, stored, identified, and issued in accordance with written procedures. Nuclear Power Engineering provides weld joint identification and authorizes weld modifications or repair.

For welds accomplished by Company forces at Indian Point or at Van Nest shops, the proper completion of weld inspection forms, weld inspection and acceptance, and permanent recording of weld acceptance, is the responsibility of the Nuclear Quality Assurance inspector or *Maintenance and Shop Operations QC Inspectors.*[119]

For welds accomplished by contractor personnel, the contractor weld process control form for welds shall require the approval of contractor quality assurance personnel. In cases where the welding contractor does not provide NDE services, as the welding proceeds the appropriate section of weld inspection form shall be completed by the Nuclear Quality Assurance inspector[120] to indicate that inspection requirements have been satisfied and to provide a permanent record of traceability of material and inspection information, as required.

Nuclear Power[121] or Nuclear Projects, as appropriate, prepare "as-constructed" information (marked-up drawings) showing weld locations and respective weld identification numbers. The "as constructed" information for modifications is forwarded to Nuclear Records Management Center, which verifies that these drawings conform to the latest modification package drawing list and then forwards them to *Design*[122] Engineering. *Design*[122] Engineering revises the affected original drawings, and distributes copies to the Nuclear Records Management Center. Nuclear Power forwards "as constructed" information for repairs to *Site*[123] Engineering for reporting to *Design*[124] Engineering as necessary. Nuclear Quality Assurance or Nuclear Projects monitors welding activities to assure compliance with approved procedures. Welding codes or requirements for work performed by contractors requires prior Engineering approval. Heat treatment is conducted in accordance with approved procedures.

The General Manager, Nuclear Quality Assurance and Oversight or his designee,[125] certifies Level III Non-Destructive Examiners. Level III examiners are responsible for examinations of Level I and Level II personnel. All NDE personnel must meet the required physical fitness criteria, pass a written examination, satisfactorily operate test equipment and interpret or analyze collected indications. Nuclear Power Engineering identifies the type of NDE to be performed.

Nuclear Quality Assurance monitors[126] NDE services to assure compliance with requirements and maintains appropriate records of work performed.

Chemical cleaning may be required during certain maintenance or modification work. The maintenance procedure identifies the approved process to be followed as well as any inspections and other controls required.

---

[118] Added.
[119] Changed from Nuclear Projects Quality Control inspector respectively to Maintenance and Shop Operations QC Inspectors.
[120] Deleted Maintenance and Construction Technical Engineer Inspection and Quality Control, as appropriate.
[121] Deleted Maintenance and Construction.
[122] Changed Nuclear Power to Design.
[123] Changed Field to Site.
[124] Changed Nuclear Power to Design
[125] Deleted Manager, Nuclear Power Test and Performance.
[126] Deleted or Test and Performance, as applicable,.

5.2.19 Test Control

Nuclear Power provides, and maintains control over operating procedures and test procedures to assure that they are appropriately prepared, authorized, implemented, documented and evaluated.

The plant Technical Specifications incorporate various engineering requirements and parameter limits that are applicable during operation of the plant. Procedures include measures to report conditions adverse to quality and to assure adequate corrective action. The NFSC reviews proposed changes to procedures that involve an unreviewed safety question as defined in 10CFR50.59. Nuclear Power establishes procedures for indicating the status of inoperable equipment, for example, tagging valves and switches to prevent inadvertent operation.

A series of periodic tests have been prepared to satisfy the requirements of the plant Technical Specifications.

Test procedures contain:

1. The test objective;
2. The acceptance or operability criteria to be used in evaluating test results;
3. Pertinent references, as appropriate;
4. Precautions;
5. Limitations;
6. Check-off sheets, as appropriate;
7. Technical specifications, as required;
8. Special equipment, as required; and
9. Step-by-step instructions.

The test procedures are developed and approved by the section responsible for the test e.g. Test and Performance, Computer Applications or Reactor and Fuel Engineering.[127]

The *responsible section*[128] sends a copy of the test procedure to the chairman of the Station Nuclear Safety Committee who arranges a SNSC review.

Once approved by the Station Nuclear Safety Committee, these test procedures are maintained by the responsible group and updated, as required, for possible future use.

Maintenance and preoperational test control consists of the following:

1. Each Work Order issued for Class A items is evaluated for retest requirements by Test and Performance which provides such requirements as necessary;
2. Prior to the test, Operations insures that all Work Orders to which the test applies have been signed off for work completion. Operations also assures that there are no unresolved conditions adverse to Quality for any item within the boundary of the test;
3. For refueling or other major shutdowns, a total test program is developed including an overall schedule for tests to be performed. The program is based on a review of all Work Orders and associated test requirements by the appropriate organizational units; and
4. Test procedure results are submitted to the responsible group which monitors test results to assure that data meet acceptance requirements.

Test and Performance monitors the performance of test procedures, as necessary, to assure that the tests are performed in accordance with written procedures.

---

[127] Added in lieu of – Each test procedure is approved by Test and Performance.
[128] Changed from Test and Performance to The responsible section.

Post-maintenance test results are evaluated by station personnel. When test results are deemed satisfactory, the *Senior*[129] Watch Supervisor certifies the test results by signing and dating the appropriate sections of the approval sheet. The record copy of the test results and the applicable Work Order covered by that test are filed in the central record file. Test results are reported to the responsible group for evaluation.

Nuclear Power prepares and controls operating records in accordance with requirements of the plant Technical Specifications. These records provide documentation for all operations, tests, inspections, shutdowns, changes and other pertinent activities associated with daily operations listed in the plant Technical Specifications. These records are maintained at the site in a manner convenient for review and are retained for five years or longer, as required by applicable codes or regulations.

5.3 Preparation of Instructions and Procedures

The administrative controls and quality assurance program is carried out in accordance with written instructions and procedures. These instructions and procedures are prepared by organizations participating in the program, e.g., Nuclear Power, Nuclear Power Engineering, Nuclear Projects, Central Stores[130] and Nuclear Quality Assurance and are reviewed, approved and controlled in accordance with Section 5.2.15.

These instructions and procedures describe activities affecting safety at the plant and provide an approved, preplanned method of conducting operations. Procedures are in documents such as administrative directives, station administrative orders, administrative directives, plant technical procedures, Nuclear Quality Assurance procedures, Nuclear Power Engineering and Purchasing operating procedures, Nuclear Projects field directives and corporate instructions. Each instruction and procedure is of a detail appropriate to the circumstance and permits the user to perform the required activity without direct supervision; is appropriately titled, dated, and approved; contains a clear, concise statement of purpose; and, as appropriate, contains in its body the titles and identifying numbers of applicable reference documents; and identifies prerequisite activities, precautions to be taken, limitations to be applied, corrective action to be implemented, step-by-step instructions, acceptance criteria and check-off lists.

Procedures fall into the following general categories:

1. System procedures describing operation related to the safety of the plant;
2. Operating procedures providing instructions for the integrated operation of the plant;
3. Startup procedures which provide for starting the reactor from hot or cold condition and recovery from reactor trips;
4. Shutdown procedures which provide for controlled reactor shutdown or shutdown following reactor trips;
5. Power operation and load changing procedures which provide for steady-state power operation and load changing, including response to unanticipated load changes;
6. Process monitoring procedures which provide for monitoring plant system performance and, as appropriate, identify limits for significant process parameters;
7. Fuel-handling procedures which provide for such activities as core alterations, refueling, fuel accountability, receipt and shipment of fuel and safety measures;
8. Maintenance procedures which provide for preparation for maintenance, performance of maintenance, post-maintenance checks and return to service, and maintenance records;
9. Radiation control procedures which provide for implementation of the radiation control program including the acquisition of radiation data, and which identify equipment for performing radiation surveys and for measurement, evaluation and assessment of radiation hazards;

[129] Changed Operations to Senior.
[130] Deleted Nuclear Fuel Supply

10. Calibration and test procedures which provide for periodic calibration and testing of safety-related instrumentation and control systems and of measuring and test equipment used in activities affecting safety;
11. Chemical-radiochemical control procedures which provide for activities such as sampling and analyses, coolant quality maintenance, control of deleterious agents and for the control, treatment and management of radioactive wastes and the control of radioactive calibration sources;
12. Emergency procedures which provide guidance for operations during potential emergencies in a manner that will allow a trained operator to identify in advance the course of events signaling an emergency as well as describing the action he should take; and for distinguishing, at least initially, between abnormal and emergency conditions; for identifying symptoms of a particular kind of emergency condition; for automatic action; for immediate operator action; for subsequent operator action; and for categories of events of particular kinds of emergencies, such as loss of coolant;
13. Procedures for implementing the emergency plan which provide for assignment of authorities and responsibilities; protective measures; specific action; medical treatment; equipment requirements; identification of emergency communications network; description of alarm signals, restoration of the plant to normal conditions; and for testing of procedures, communications network and alarm system; and
14. Test and inspection procedures which provide a description of objectives, acceptance criteria; prerequisite and special conditions, limiting conditions, the test or inspection procedure; specify any special equipment or calibration required; and which, as appropriate, identify hold points.

APPENDIX A

Class A Items

1. Core and Reactor Internals.

2. Control Rods and Control Rod Drives and Drive Housings.

3. Primary Coolant System.

   - Pressurizer System.
   - Primary Relief System.
   - Reactor Coolant Pump Shaft.
   - Reactor Coolant Pump Flywheel.
   - Reactor Coolant Pump Seals.
   - All pressure boundaries (vessels, pumps, piping and valves) through the second pressure boundary isolation device.

4. Secondary Coolant System.

   - Main Steam Lines up to and including the Second Main Steam Isolation Valves (MS-2).
   - Main Feedwater System to the Steam Generator downstream of and including the system's second Isolation Valve.
   - Boiler Blowdown from the Steam Generators up to and including the system's isolation valves.
   - The Main Steam Line to the Auxiliary Feedwater Turbine Drive.
   - Turbine Stop and Control Valves.
   - First Stage Turbine Pressure Transmitters.
   - Independent Electrical Overspeed Protection System Electrical Feeds from each of their respective AC Instrument Bus Circuit Breakers up to and including their Internal 1.5A fuses and Fuse Holders.
   - Feedwater Regulator Valves (Main and Low Flow Bypass).
   - Main Boiler Feedwater Pump Motor Operated Discharge Valves (BFD -2-21 & BFD 2-22).
   - Main Steam Traps and Atmospheric Dump Drains and Silencer Drains.
   - Feedwater Leading Edge Flowmeters and Associated Pressure Transmitters (PT-3101 through 3104).

5. Auxiliary Boiler Feedwater System.

   Includes:

   - Condensate Storage Tank, supply piping and valves to the Auxiliary Feedwater Pumps.
   - City water to Auxiliary Feedwater pump up to and including valve CT-49.

6. Chemical and Volume Control System.

7. Containment Building.

   Includes:

   - Access air locks.
   - All piping and electrical penetrations.
   - Internal floors, walls and structural steel.

8. Containment Isolation System.

9. Containment Spray System.

10. Containment Air RecirculationCooling and Filtration System.

11. Gaseous Waste Processing System.

12. Liquid Waste Processing System.

13. Nuclear Service Water System.

    - All cooling paths to and from nuclear safety related equipment.

14. Instrument Air System.

    - Compressor and associated equipment and essential air header to nuclear instruments, control and valves.
    - Closed Cooling Water System.

15. Fuel Handling System.

16. Reactor Control and Instrumentation System.

17. Reactor Protection / Trip System.

18. Sampling System.

    - Including only pressurized lines up to the second Containment Isolation Valve.

19. On-site Emergency A.C. Power System.

    Includes:

    - Electrical components and circuitry up to and including isolation devices for non-emergency loads.
    - Emergency Diesel Generators and Diesel Generator Auxiliary Systems, i.e., fuel oil, Cooling Water and Startup Air Systems.
    - (6.9 KV Buses and Lighting Systems are both Non-Class A.)

20. On-site D.C. Power Systems.

    Includes:

    - Electrical components and circuitry up to and including isolation devices for non-emergency loads.
    - Batteries, battery chargers, D.C. power panels, D.C. distribution panels and associated cabling.

21. Process and Area Radiation Monitoring Systems.

22. Containment Penetration and Weld Channel Pressurization System.

23. Hot Penetration Cooling System.

24. Isolation Valve Seal Water System.

25. Post Accident Containment Hydrogen Control System.

    Includes:

    - Hydrogen Recombiner System.
    - Post Accident Containment Vent System.
    - Containment Building Post Accident Air Sampling System (H2-02 Analyzers).

26. Safety Injection System.

- High Head Injection for ECCS.
- Low Head Injection for ECCS.
- Recirculation and Containment Sumps.
- Accumulators.
- External and Internal ECCS Recirculation Systems.

27. Residual Heat Removal System.

Includes:

- Low Head Injection for ECCS.
- External and Internal Recirculation Systems.
- Recirculation and Containment Sumps.

28. Component Cooling System.

Includes:

- Auxiliary Component Cooling Pumps and Piping.

29. Refueling Water Storage Tank.

30. Spent Fuel Pool Cooling and Make-up System.

31. Ventilation / Filtration System for Areas containing Safety Related Systems and Systems containing Radioactivity.

32. Reactor Vessel Service and Inspection Equipment.

Includes:

- Polar Crane.
- Equipment that is used over the core and that could cause damage to the nuclear fuel assemblies during the time the reactor head is removed.
- Reactor Vessel and head inspection tools.

33. Containment Sump System.

    Includes:

    - Sump Pump.
    - Piping, flow and level Instruments.
    - Level Instrumentation in the Reactor Cavity Sump.

34. Primary Coolant Leak Detection System.

35. Nitrogen Supply to Nuclear Equipment.

36. Hydrogen Supply to Nuclear Equipment.

37. Primary Water Make-up System.

38. Supports required for all the above listed items.

    Includes:

    Structures and Seismic Restraining Devices.

39. All Regulating Systems, Controlling Systems and instrumentation used with the above listed items.

    Includes:

    - Indications used to determine operator action before (normal operation), during and following a postulated accident.

40. All items designed in Design Specification as per ASME Section III, Classes 1, 2, and 3, MC and CS.

41. All equipment performing Category 1 or 2 functions per Regulatory Guide 1.97.

42. Any fuses and circuit breakers which provide protection (limit electrical fault currents) for containment electrical penetrations.

43. ATWS* Mitigation System Actuation Circuitry (AMSAC)
*ATWS - Anticipated Transient without Scram.

**Note:

In order to preclude the need to develop an AMSAC specific QA program, AMSAC equipment will be treated as "Class A", which for quality assurance purposes will invoke Con Edison's 10CFR50, Appendix B program. Should any aspect of our 10CFR50, Appendix B, QA program, prove overly restrictive or otherwise unnecessary, provision will be made to waive that aspect, provided that the quality assurance guidance contained in Generic Letter 85-06 is observed. Procedures which may waive provisions of 10CFR50, Appendix B, shall be developed for these unique situations and approved by the Senior Vice President, Central Operations per section 3.2 of this Quality Assurance Program.

The following consumables are used in conjunction with the items listed above:

44. Diesel Generator Fuel Oil.

45. Boric Acid.

46. Lubricating Fluids whose loss could degrade critical components.

47. Demineralizer Resin.

Includes:

- Resins used in the Chemical and Volume Control Systems.

48. Trisodium phosphate for use in the Containment Spray System.

49. Weld Rod and Weld Filler Material.

50. Hydraulic Snubber Fluids and Seals.

Chart A
CORPORATE
ORGANIZATION
REVISED 10/97

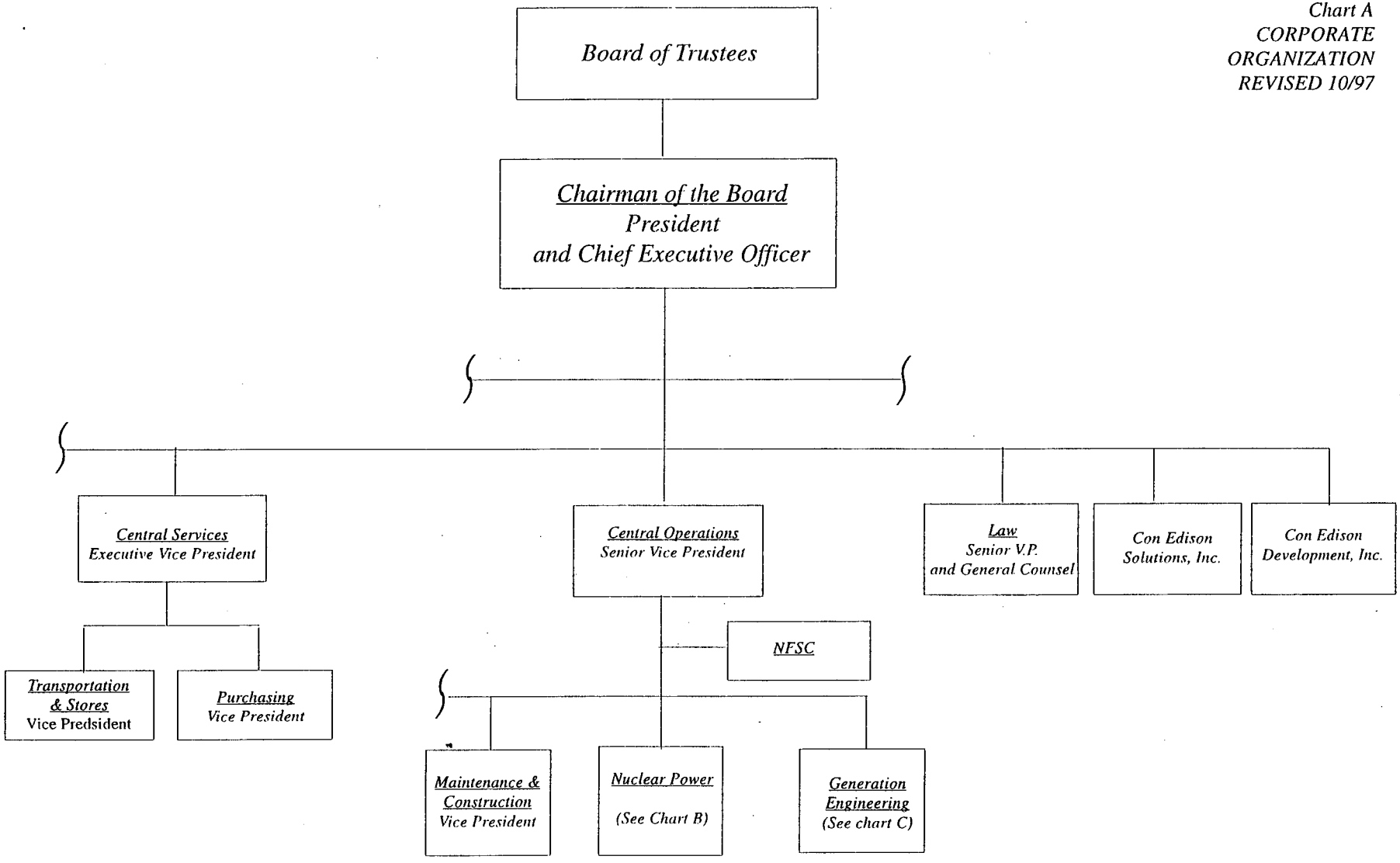

Chart B
NULCEAR POWER
ORGANIZATION
REVISED 10/97

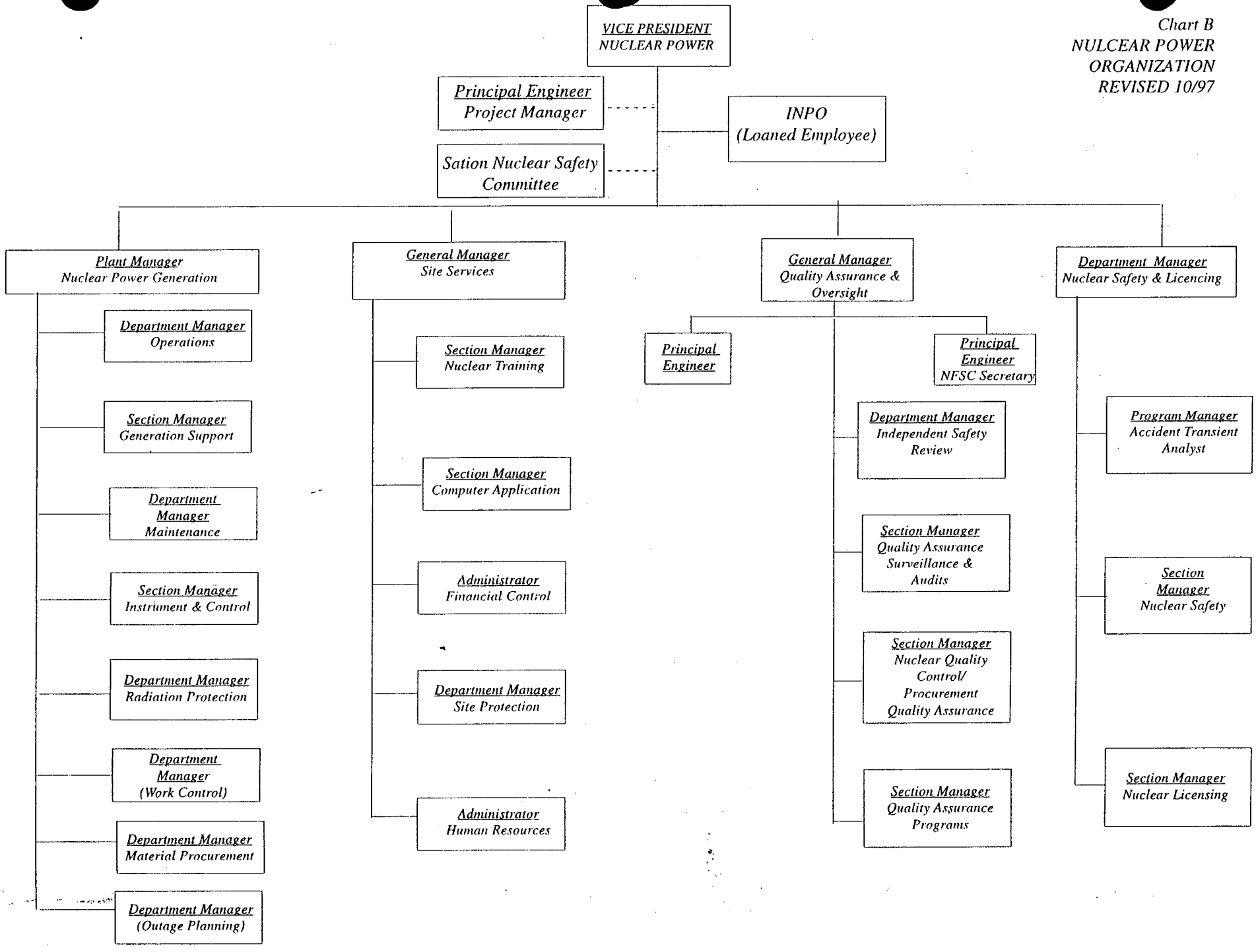

Chart C
GENERATION
ENGINEERING
ORGANIZATION
REVISED 10/97

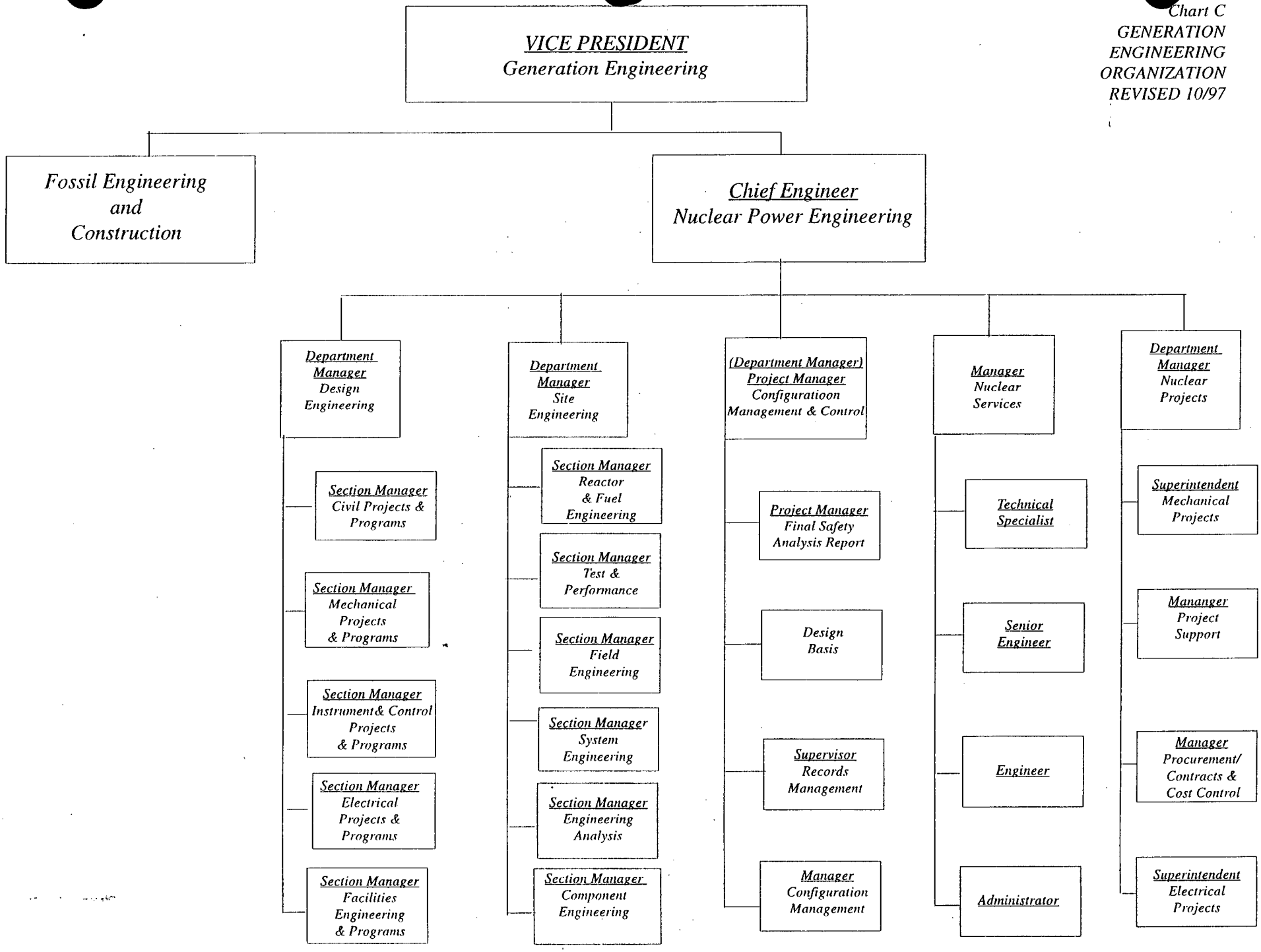

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
1.	General	Certain Regulatory Guides invoke or imply Regulatory Guides and standards in addition to the standard each primarily endorses.	The Con Edison commitment refers to the Regulatory guides (and the ANSI Standards they endorse) specifically identified in the "Foreword". Additional Regulatory Guides, other guides and similar documents implied or referenced in those specifically identified in the "Foreword" are not part of this commitment.
2.	General	Certain ANSI Standards extend the scope of applicability to include systems, structures, and components whose satisfactory performance is required for a plant to operate reliably.	Our commitment to these standards applies only to those systems, structures, and components whose satisfactory performance is required to prevent postulated accidents that could cause undue risk to the health and safety of the public; or to mitigate the consequences of such accidents. Reliable operation of the plant may depend upon other systems structures and components which are not covered by this commitment.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
3.	General	NRC Regulatory Guides, and ANSI Standards do not provide for deviation from any requirement(s) when emergency or other urgent conditions make such deviation necessary.	The majority of ANSI Standards endorsed by the Regulatory Guides to which Con Edison has committed are concerned with the design and/or construction phases of nuclear power plants. Consequently, Con Edison has adapted these standards to its operations phase, where practicable, and has developed provisions for certain conditions not addressed in the standards. In the event of an emergency condition which, if not promptly corrected could likely affect the health and safety of the public, the Vice President, Nuclear Power or his designated alternate(s) may authorize emergency repairs and deviations from written procedures. The nature of the emergency, its cause and the corrective action taken are documented. Waivers to specific procedures may be authorized by the Vice President, Nuclear Power or his designated alternate if necessary to avoid significant loss of unit capacity with due consideration for public health and safety. Such waivers, including the need therefore, are documented. The above provisions assure procedural control for by-passing critical inspections, tests, and operations.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
4.	General	Certain ANSI Standards contain requirements which, under certain conditions, may conflict with limiting personnel radiation exposure.	The majority of ANSI Standards endorsed by the Regulatory Guides to which Con Edison has committed are concerned with the design and/or construction phases of nuclear power plants. Consequently, Con Edison has adapted these standards to its operations phase, where practicable, and has developed provisions for certain conditions not addressed in the standards. When conformance with particular standards requirements; e.g., cleaning of fluid systems, housekeeping, would conflict with limiting personnel radiation exposure, the degree of conformance to the standards is determined by appropriate levels of management.
5.	General	Various standards require inspections, examinations and tests, but do not specify the frequencies of these activities.	Except in ANSI N45.2.5, the frequencies of required inspections, examinations and tests are not specified in the standards. Accordingly, the frequency of inspections, examinations and tests required by the standards - other than ANSI N45.2.5 - is identified on a job-by-job basis. The amount of inspections, examinations and tests identified is based upon the safety significance of the item involved.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
6.	ANSI N18.7 Section 5.2.2	"Temporary changes which clearly do not change the intent of the approved procedure shall, as a minimum, be approved by two members of the plant staff knowledgeable in the areas affected by the procedures."	Temporary changes will be authorized per the provisions of the Administrative Controls Section of the plant Technical Specifications.
7.	ANSI N18.7 First Sentence of 5.2.7	(a) "Maintenance or Modification ... shall be performed in a manner to ensure quality at least equivalent to that specified in original - design bases and requirements, materials specifications, and inspection requirements...".	Requirements (a), (b) and (c), as a whole, require a degree of quality for replacement items consistent with their function. Our program allows this degree of quality to be more or less stringent than the original, provided the specified quality requirements are reviewed and approved by Nuclear Power Engineering prior to use.
	First Sentence of 5.2.7.1	(b) "A maintenance program shall be developed to maintain safety related structures, systems and components at the quality required for them to perform their intended functions."	
	ANSI NIB.7 Para (1) of 5.2.13	(c) "Purchased to specifications and codes equivalent to those specified for the original equipment, or those specified by a properly reviewed and approved revision."	

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
8.	ANSI N18.7 Section 5.2.14	General requirements for nonconforming items.	Paragraph 5.2.14 applies to programmatic as well as to specific provisions of ANSI N18.7 and its associated references. Consistent with paragraph 5.2.14, our quality assurance program will contain provisions for controlled, documented waivers to its requirements.
9.	ANSI N18.7 Section 5.2.13.1	Requires certain provisions in procurement documents.	Per 5.2.13 procurement document contents for replacement items will be based primarily on original procurement document contents. The provisions of 5.2.13.1 will be included if required by original procurement document or warranted by performance of the item. Procurement document content for new items will meet the requirements of 5.2.13.1. When requirements of ANSI standards are included in procurement documents, the requirements may not be identified as excerpts from ANSI standards. Procurement documents are developed and reviewed in accordance with paragraph 5.2.13 of the Quality Assurance Program description.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
10.	ANSI N18.7 Section 5.2.13.1, (2)	"... drawings, specification and industrial codes and standards... shall be identified by titles and dates of issue...".	Drawings are identified by drawing number, revision number, and title.
11.	ANSI N18.7 Section 5.2.13.1 1st Para.	Where changes are made to procurement documents, they shall be subject to the same degree of control as was used in the preparation of the original documents.	Consistent with the requirements of ANSI N45.2.11, paragraph 7.2, minor changes to (procurement) documents, such as, inconsequential editorial corrections, or changes to commercial terms and conditions may not require that the revised (procurement) document receive the same review and approval as the original documents.
11.1	ANSI N18.7 Section 5.2.15	"The frequency of subsequent [procedure] reviews shall be specified...". "Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years...".	As an alternate to a periodic review, procedures are reviewed as described in Section 5.2.3.
12.	ANSI N18.7 Section 5.2.17	"Inspection shall be performed by qualified individuals other than those who performed or directly supervised the activity being inspected."	Examinations, checks, and inspections of work at Indian Point Station are normally accomplished and documented by Supervisors responsible for the work. Where independent examinations, checks, and inspections are determined appropriate, personnel who do not perform work and do not directly supervise the work are utilized. These independent examinations, checks, and inspections are comparable in extent to corresponding construction phase activities.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
13.	ANSI N18.7 Section 5.2.17 last paragraph, next to last sentence	Deviations, their cause, and any corrective action completed or planned shall be documented.	Consistent with the documentation requirements of Criterion XVI, Appendix "B" to 10 CFR 50, for corrective action, significant deviations, their cause and any corrective action completed or planned are documented. Results of inspections used to accept or reject items shall be documented in all cases.
14.	ANSI N18.7 Section 6 References	"When the preceding American National Standards referred to in this document are superseded by a revision approved by the American National Standards Institute, Inc., the revision shall apply."	Our commitment to ANSI standards does not extend beyond the standards (date, revision, etc.) identified in that commitment.
15.	ANSI N18.7 ANSI N45.2 ANSI N45.2.2 ANSI N45.2.13	General and specific procurement requirements.	Alternate methods to those specified in these standards may be used in special cases to support procurement of items; e.g., those items urgently needed, items where commercial quality is sufficient or sole source items. In these cases, prior to procurement, exceptions to the standard requirements will be documented and concurred in by Nuclear Power Engineering, Nuclear Power and Nuclear Quality Assurance.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
16.	ANSI N45.2.2 Section 2.1	"The specific items to be governed by this standard shall be identified."	Items governed by this standard or portions thereof are identified on a case-by-case basis during the design document and procurement document development processes.
17.	ANSI N45.2.2 Section 2.7	Each of the specific items governed by this standard shall be classified into one of four levels.	All safety-related items are protected to an extent commensurate with their sensitivity and importance to safety, but are not specifically classified in various levels per the guidance of paragraph 2.7. Therefore, satisfaction of requirements for packaging, shipping, receiving, storage and handling for particular items could be different than those suggested.
18.	ANSI N45.2.2 Subsection 3.9	General marking requirements.	Some items are of a size, shape or consistency which preclude marking. Marking in such cases is applied to box or other enclosure. Tagging is employed, where necessary.
19.	ANSI N45.2.2 Subsection 5.2.1	"Preliminary visual inspection or examination shall be performed prior to unloading...".	Inspection after unloading is sufficient to determine the condition of many items. In special instances, preunloading examination is performed.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
20.	ANSI N45.2.2 Section 5.2.2	The (receiving) inspections shall be performed in an area equivalent to the level of storage requirements for the item.	Receiving inspection is performed in a manner and in an environment which do not endanger the requisite quality of an item; however, receiving inspection area environmental-controls may be less stringent than storage environmental requirements for that item.
21.	ANSI N.45.2.2 Paragraph 5.2.3	..."The 'Special Inspection' procedure, complete with documentation instructions shall be attached to the item or container...".	The "Special Inspection" procedure shall be readily available to inspection personnel and may be attached to the item or container.
22.	ANSI N45.2.2 Paragraph 5.3.3	"A statement documenting the authority and technical justification for the conditional release...shall be prepared...".	A statement documenting the authority and justification for the conditional release is prepared. Justification may not always be of a technical nature.
23.	ANSI N45.2.2 Subsection 6.2.4	The use or storage of food, drinks and salt tablet dispensers in any storage area is prohibited.	People working in storage areas have a right of access to water dispensers per OSHA requirements. Additionally, due to location and layout of the building, personnel temporarily store lunches in the workplace. This area is regularly policed for sanitation.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
24.	ANSI N45.2.2 Appendix (A-3) A.3.9 (1) Second Group	"Container markings shall appear on a minimum of two sides of the container, preferably on one side and one end."	Containers are adequately marked for storage, identification and retrieval. Multiple marking requirements are imposed, where necessary.
25.	ANSI N45.2.2 Appendix (A-3) A.3.9 (4) Second Group	"Container markings shall be... no less than 3/4" high container permitting."	Container markings are of a size which permits easy recognition.
26.	ANSI N45.2.2 Appendix (A-3) A.3.9 (6)	"Container markings shall include the following information:"	The information required in container marking is evaluated on a case-by-case basis. Marking is adequate in each case.
27.	ANSI N45.2.2 Appendix (A-3) Section A 3.5.1 (1)	"Non-metallic plugs and caps shall be brightly colored."	Non-metal plugs and caps are of a suitably visible color.
28.	ANSI N45.2.2 Appendix (A-3) Section A 3.5.1 (5)	Plugs or caps shall be secured with tape or other means as necessary to prevent accidental removal.	In cases where plugs or caps do not snugly fit, additional securing devices or measures will be used.
29.	ANSI N45.2.3	Identifies various housekeeping requirements, including cleanliness, fire prevention and fire protection which must be accomplished during the progress of construction.	When this standard is applied, its requirements are implemented in those areas affected by work activities associated with modifications or maintenance as determined necessary by Nuclear Power Engineering or Nuclear Quality Assurance. Remaining provisions of para. 5.2.10 of 18.7 will be adhered to.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
30.	ANSI N45.2.4 Section 3.0	Preconstruction verification.	This section requires verification that items are in satisfactory condition for installation and have not suffered since initial receipt inspection. Documentation of that verification in addition to the documentation of the initial receipt inspection is not required.
31.	ANSI N45.2.4 Section 5.2	Identifies various tests to be performed.	Consistent with section 5.2 of IEEE 336, Draft 1, Revision 2, 1976, these tests will be performed "as appropriate" as determined by Nuclear Power Engineering or Nuclear Power.
32.	ANSI N45.2.4 Subsection 5.2.2 Mechanical Tests	"Mechanical tests shall be performed to ascertain that ...components or systems can withstand system pressure ratings."	For the plant operational phase "system pressure ratings" is interpreted to mean system operating pressure. For the Reactor Coolant System, Facility Technical Specifications identify testing requirements.
33.	ANSI N45.2.4 Subsection 6.2.1	"Items requiring calibration shall be tagged... indicating date of calibration and identity of person...".	Items requiring calibration are tagged indicating date of calibration. Identity of person that performed the calibration shall be indicated on tag or traceable through records.
34.	ANSI N45.2.5 Section 2.5	Requires periodic calibration of thermometers.	The initial accuracy of liquid-in-glass thermometers is established and, because of their inherent stability, they need not be "adjusted or calibrated at prescribed intervals".

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
35.	ANSI N45.2.5 Section 2.5.2 Second paragraph	"...when discrepancies... are found all items inspected shall be considered unacceptable."	Consistent with ANSI N18.7, 5.2.16 when devices are found to be out of calibration, an evaluation shall be made and documented concerning the validity of previous tests.
36.	ANSI N45.2.4 Subsection 6.2.2 Systems Tests	"These tests shall be made to verify that all parts of a system properly coordinate with each other."	For the plant operation phase, this requirement is interpreted as not requiring that an entire system be re-tested after completion of modification of only a portion of that system. The testing requirements of the plant Technical Specifications are for inoperable equipment.
37.	ANSI N45.2.5 Section 3.3.4	"Inspections shall be performed to... verify that the process is suitable for the particular application. Verify that manpower, equipment and materials are available...".	Design controls verify qualifications of processes and suitability for particular applications. Verification of availability of manpower equipment, etc. is performed by project management rather than inspection personnel.
38.	ANSI N45.2.5 Section 4.2	This section specifies inspections of storage, handling facilities, stock piles, water, etc.	Quality of materials is verified prior to batching in lieu of these inspections.
39.	ANSI N45.2.5 Section 5.4	Various wrenches require calibration twice daily or weekly.	This requirement will be conformed with in the case of continued use. For intermittent use calibration frequency is based upon usage and calibration intervals may be greater than days or weeks.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
40.	Regulatory Guide 1.58 ANSI N45.2.6	General requirements for inspection, examination and testing personnel.	NDE personnel meet the requirements of ASNT-TC-1A. Other personnel are qualified as discussed in Sections 3.3 and 3.4 of the Program Description.
41.	ANSI N45.2.8 Section 3.2	If checks disclose apparent loss of identification, affirm identification prior to release for installation.	We will check identification of an item prior to release for installation; however, option is maintained to knowledgeably install equipment lacking full identification providing deficiencies are resolved prior to its use; i.e., operation. Such action is recorded in quality control documents.
42.	ANSI N45.2.9 Section 1.1	This standard provides general requirements... of nuclear power plants.	The requirements of this standard will be applied to records generated after this standard is implemented.
43.	ANSI N45.2.9 Section 1.4	Definition of Quality Assurance Records.	This definition results in unreasonable requirements regarding time of application of the record system. Con Edison will introduce records into the system as soon as practical after completion of the document.
44.	ANSI N45.2.9 Section 3.2.2	The quality assurance records shall be listed in an index.	The types of quality assurance records shall be listed in an index.
		The index shall indicate, as a minimum, record retention times, where the records are to be stored and the location of the records within the storage area.	In accordance with ANSI N45.2.9, paragraph 3.2.2, the index will indicate the location of the records within the record system.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
45.	ANSI N45.2.9 Section 4.2	A specific submittal plan shall be established for quality assurance records by management between the purchaser and supplier.	Purchase orders identify any particular record submittal requirements, as applicable. Acceptance of the purchase order by the supplier constitutes agreement with the purchaser.
46.	ANSI N45.2.9 Sections 4.3, 4.4 and 5.3	"... a receipt control system shall include: 1. A records checklist... 2. A record of ... records received. 3. Procedures for receipt and inspection of ... records. ... system shall permit ... assessment... status... of records. ... a method for verifying that records received are in agreement ... and are in good condition. ... a method of verifying that the records agree with pre-established records checklist."	We will provide these administrative controls for our Nuclear Power Engineering, Nuclear Power and Nuclear Quality Assurance record storage area(s) but, where only a small number of non-permanent records are controlled by individual organization(s), these auxiliary administrative controls are unnecessary.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
47.	ANSI N45.2.9 Section 5.4	"Special processed records shall be stored... as recommended by the manufacturer of these materials."	In determining storage requirements, we will take into account recommendations of the manufacturer if available. Normally, these recommendations will be followed; however, a blanket commitment is impracticable as we must retain the flexibility for final determination of storage needs.
48.	ANSI N45.2.9 Section 5.6	"For storage of film... controls shall be provided... as recommended by the manufacturer."	See above.
49.	ANSI N45.2.9 Section 5.5	A full time security system shall be established to preclude the entry of unauthorized personnel into the storage area. This system shall guard against larceny and vandalism.	For the purpose of this commitment "storage area" is interpreted to mean a Con Edison facility which contains records; e.g., the Indian Point site, 4 Irving Place, etc., and "security system" is interpreted to mean security measures.
50.	ANSI N45.2.9 Section 5.6	Requires a "Facility" or duplicate records.	Non-permanent records need not be duplicated or stored in a "Facility" but are required to be stored per NFPA Class I record provisions.
51.	ANSI N45.2.9 Section 6.2	"Storage system shall provide for the accurate retrieval of information without undue delay."	In accordance with ANSI N45.2.9, paragraph 6.2, the storage system shall provide for the accurate retrieval of information.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
52.	Regulatory Guide 1.88	"When NFPA 232-1975 is used, Quality Assurance Records should be classified as NFPA Class I Records."	When a single record storage facility is maintained, permanent (lifetime) records will be afforded fire protection in accordance with NFPA Class I record provisions. Fire protection in accordance with NFPA Class 2 provisions shall be provided for records designated as non-permanent.
53.	ANSI N45.2.9 Section 5.6	"An alternative to... a record storage facility... is... duplicate records stored in a separate remote location."	Our duplicate records may be stored in separate rooms distant from one another but within the same building providing their simultaneous exposure to hazards is unlikely. If records are stored in the same building, protection will be provided to assure that simultaneous exposure to hazards is unlikely.
54.	ANSI N45.2.9 Section 6.2	A list shall be generated designating those personnel who shall have access to the files.	Lock and key controls, duplication of records in separate locations and other security measures could obviate the need for access lists. In cases where access lists are utilized, they are not required in all cases to identify specific individuals.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
55.	ANSI N45.2.9 Section 7.2	"Upon final transfer the owner shall... acknowledge receipt...".	Except for special cases as agreed to by Con Edison and the vendor, acknowledgement or receipt of vendor quality assurance records is unnecessary.
56.	ANSI N45.2.9 Appendix A	Applicable Codes and Standards used in Design.	Codes and standards used in design are not considered records to be stored and controlled per the requirements of N45.2.9. They will be stored and controlled in accordance with normal library practices.
57.	ANSI N45.2.10	"Quality Assurance Terms and Definitions."	Where terms defined in ANSI N45.2.10 are also defined in other standards to which Con Edison has referred via commitments to Regulatory Guides in the "Foreword" of the program description, the definitions in those other standards shall apply.
58.	ANSI N45.2.10	Definitions of "Certificate of Conformance" and "Certificate of Compliance".	Based upon the guidance of ANSI N45.-2.13, 10.2, the definitions of these two terms may be used interchangeably.
59.	Deleted QAPD Rev.13		

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
60.	ANSI N45.2.11 Section 2.2	Program procedures shall cover making experience reports available to cognizant design personnel.	A variety of experience reports from a number of sources are made available to design personnel without benefit of written procedures.
61.	ANSI N45.2.11 Section 2.2	"Program procedures shall cover necessary training of personnel performing activities covered by this standard."	Procedures describing technical training are unnecessary. However, our program includes procedures for programmatic training of Engineers.
62.	ANSI N45.2.11 Section 6.3	"The results of the review shall be documented... a number of basic questions that shall be addressed...".	Con Edison documents completion of the design verification activity, but does not necessarily document that each of the questions listed has been considered in the verification process. The subjects required to be considered during design review are identified in procedures.
63.	ANSI N45.2.13 Section 5.2	Specifies subjects to be evaluated during bid evaluation.	Except in special cases items d., e., and f. may be evaluated prior to submittal to bids.
64.	ANSI N45.2.11 Section 3.1	"Changes from specified design inputs including the reason for the changes shall be identified, approved, documented and controlled."	Changes from specified design inputs and quality standards are identified, approved, documented and controlled. The reasons for the changes need not be documented.
	Section 4.2	"Changes from specified quality standards including reasons for the changes shall be identified, approved, documented and controlled."	

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
65.	ANSI N101.4	Identifies numerous detailed, specific requirements that must be accomplished in the course of procuring, applying and inspecting protective coatings.	When N101.4 is applied, new quality requirements will be developed based on its provisions, but specific requirements, such as documented site meetings, field demonstrations, substrate priming, applicator reporting, inspection reporting and report forms will be considered on a job-by-job basis.
66.	Regulatory Guide 1.37 Section C.4	Prohibits chemical compounds that contain chlorides, fluorides, lead, zinc, copper, sulphur or mercury.	Use of cleaning agents containing only trace amounts of these compounds is acceptable.
67.	Regulatory Guide 1.64 Section C.2	Restriction on design verification.	Considering the various duties of a supervisor, both administrative and technical, universal prohibition of design verification by the originator's supervisor is inappropriate. Design verification is performed by an individual(s) other than the originator if that individual(s) did not specify a singular design approach, rule out certain design considerations or establish the design inputs for the particular design aspect being verified.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
68.	ANSI N45.2.12	Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants.	This standard is primarily applicable to audits conducted of utilities' quality assurance programs by internal auditing organizations. Some of its provisions are impractical and unnecessary to apply when conducting vendor surveillance and vendor evaluations and in these cases all of the provisions of this standard will not apply.
69.	ANSI N45.2.13 Section 4.2a	"Information which shall be evaluated shall include 1) Experience of users of identical or similar products of the prospective supplier."	"Experience of users" is interpreted to mean Con Edison or other utility experience at conventional plants and nuclear plants.
70.	ANSI N45.2.13 Section 10.2	General requirements for Certificate of Conformance.	Vendor certifications that do not necessarily contain all of the requirements of section 10.2 may also be used as a basis for receiving inspection.
71.	ANSI N45.2.13 Section 10.2d	"The certificate shall be attested to by a person who is responsible for this quality assurance function and whose function and position are described in the Purchaser's or Supplier's quality assurance program."	Certificates may be signed at times by company president, staff personnel, or Engineering and not necessarily persons directly responsible for the quality assurance function as described in the supplier's quality assurance program.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
72.	ANSI N45.2.13 Section 10.2e	"The certification system, including the procedures to be followed in filling out a certificate and the administrative procedures for review and approval of the certificates shall be described in Purchaser's or supplier's quality assurance program."	The vendors overall quality assurance program is reviewed during the vendor evaluation activity. Specific procedures related to the details of the certification system, if applicable, may not necessarily be reviewed.
73.	ANSI N45.2.13 Section 10.2f	"Means shall be provided to verify the validity of suppliers certificates."	Verification of validity of suppliers certificates is conducted if past quality performance indicates the need for such verification.
74.	ANSI N45.2.23 1.4.3	An audit is a documented activity performed in accordance with written procedures or checklists to verify, by examination, that applicable elements of the quality assurance program have been developed, documented, and effectively implemented in accordance with specified requirements. An audit should not be confused with surveillance or inspection for the sole purpose of process control or product acceptance.	The requirements of ANSI N45.2.23 apply to personnel who perform audits involving quality assurance elements. They do not apply to personnel who perform audits involving compliance with Technical Specifications in areas such as Auxiliary Electrical Systems, Steam & Power Conversion and Containment Integrated Leak Testing etc., nor to personnel who perform vendor evaluations or surveillance.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
75.	ANSI N45.2.23 2.3.1.1	"...in addition score one (1) credit for a masters degree in engineering, physical sciences, business management, or quality assurance from an accredited institution."	Also score one (1) credit for a Masters Degree in mathematics.
76.	ANSI N45.2.23 2.3.1.2	"...if two (2) or more years of this experience have been in quality assurance, score two (2) additional credits, or...".	Also score two (2) additional credits for two (2) or more years reliability experience.
		"...If two (2) or more years of this experience have been in nuclear quality assurance, score three (3) additional credits, or...".	Also score three (3) additional credits for two (2) or more years nuclear reliability experience.
77.	ANSI N45.2.23 2.3.1.3	"...Certification of competency in engineering, science, or quality assurance specialties issued and approved by a State Agency, or National Professional or Technical Society, score (2) credits."	Also score two (2) credits for ASQ certification as a Reliability Engineer.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
78.	ANSI N45.2.23 2.3.2	"...The prospective Lead Auditors shall have the capability to communicate effectively both written and oral. These skills shall be attested to in writing by the Lead Auditor's employer."	Separate attestment regarding communications skill shall not be made. Designation as Lead Auditor shall constitute indication of adequate communication skill.
79.	ANSI N45.2.23 2.3.3	"...Prospective Lead Auditors shall have training to the extent necessary to assure their competence in auditing skills."	Previous on-the-job training at prior companies, organizations or Con Edison shall constitute credit towards Lead Auditor designation. Contractor personnel used as Lead Auditors shall be certified by their employers whose training program shall have been reviewed and found satisfactory by Con Edison.
80.	ANSI N45.2.23 2.3.4	"The prospective Lead Auditor shall have participated in a minimum of five (5) quality assurance audits within a period of time not to exceed three (3) years prior to the date of qualification, one audit of which shall be a nuclear quality assurance audit within the year prior to his qualification."	Participation in vendor quality assurance program evaluations, vendor surveillance, site Nuclear Quality Assurance surveillance or ASME "N" stamp nuclear surveys, shall constitute credit towards meeting this requirement.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
81.	ANSI N45.2.23 2.3.5	"...The prospective Lead Auditor shall pass an examination which shall evaluate his comprehension of and ability to apply the body of knowledge identified in paragraph 2.3.3."	Audit management may waive the requirements of ANSI N45.2.23, paragraph 2.3.4 and 2.3.5 requiring participation in audits and examination, when the individual has demonstrated, by past experience and/or knowledge, an obvious capability to conduct audits.
82.	ANSI N45.2.23 3.2	"Lead Auditors shall maintain their proficiency through one or more of the following: regular and active participation in the audit process; review and study of codes, standards, procedures, instructions, and other documents related to quality assurance programs and program auditing; participation in training programs. Based on management annual assessment, management may extend the qualification, required training, or require requalification. These evaluations shall be documented."	Participation in vendor quality assurance program evaluations, vendor surveillance, site Nuclear Quality Assurance surveillances, or ASME "N" stamp nuclear surveys, shall constitute credit towards maintenance of proficiency. Documented annual assessment of auditors is not required for personnel whose ongoing responsibilities include auditing, vendor evaluation, vendor surveillance, or site Nuclear Quality Assurance surveillances.

TABLE A

Item No.	Regulatory Guide/ANSI Std. Reference	Requirement	Interpretation/Alternate/Exception
83.	ANSI N45.2.23 3.3	"Lead Auditors who fail to maintain their proficiency for a period of two years or more shall require requalification. Requalification shall include retraining in accordance with the requirements of paragraph 2.3.3, reexamination accordance with paragraph 2.3.5, and participation as an Auditor in at least one nuclear quality assurance audit."	Management shall determine the basis for requalification on a case-by-case basis, and may elect to waive retraining, reexamination and audit participation based upon a review of the individual's knowledge and capability, prior performance and recent experience.

TABLE B

ITEM NO.	REGULATORY GUIDE / ANSI STD. REFERENCE	GUIDELINE	INTERPRETATION / ALTERNATE
	ANSI N45.2.1, 1973 "Cleaning of Fluid Systems..."		
1.	Subsection 3.1.1	"Such items should receive their required level of cleanliness...".	This "should" is beyond the scope of this standard as indicated by the last sentence on the page.
2.	Subsection 3.1.2.1	Under "NOTE", "localized rusting...should be evaluated metallurgically."	Laboratory types tests on localized rusting will be conducted when the need for such tests is determined by Nuclear Power Engineering or Nuclear Quality Assurance.
3.	Section 5	The forth "should" requires fabrication of a complete unit where inspection can be blocked. The fifth "should" requires inspection of the completed unit immediately prior to closing access points.	The special fabrication and inspection requirements will be complied with as required by Nuclear Power Engineering or Nuclear Quality Assurance.
4.	Section 5	The sixth "should" requires cleaning of surfaces before proceeding to the next installation or construction step.	The degree of surface cleanliness and the frequency of cleaning will be as determined by Nuclear Power Engineering or Nuclear Quality Assurance.
5.	Section 5	The seventh "should" prohibits the use of mineral or organic acids on stainless steel.	Organic acids will be used only as permitted by Nuclear Power Engineering. After their use, however, all residual traces of the acid will be removed.

TABLE B

ITEM NO.	REGULATORY GUIDE / ANSI STD. REFERENCE	GUIDELINE	INTERPRETATION / ALTERNATE
	ANSI N45.2.1, 1973 "Cleaning of Fluid Systems..."		
6.	Section 5	The eighth "should" requires removal of local rusting from corrosion resistant alloys by mechanical means.	When the need for removal of rust is determined, it shall be removed by mechanical means.
7.	Section 6	The second "should" requires personnel entering the system to wear clean outer clothing and shoe covers.	We interpret system to mean the primary coolant system.
8.	Subsection 7.1	The first "should" requires attachment of loose tools "to either the workman or the exterior of the system with a lanyard."	Loose tools will be controlled as specified by procedure or by Nuclear Quality Assurance. Precautionary measures such as barriers between work areas, and tool check-in and check-out controls may obviate the need for attachment.
9.	Subsection 7.2.2	The first "should" specifies a method for determining the effectiveness of alkaline cleaning.	When alkaline cleaning is performed, it will be accomplished in accordance with the requirements of Nuclear Power Engineering.

TABLE B

ITEM NO.	REGULATORY GUIDE / ANSI STD. REFERENCE	GUIDELINE	INTERPRETATION / ALTERNATE
	ANSI N45.2.1, 1973 "Cleaning of Fluid Systems..."		
10.	Subsection 7.2.2	The second "should" requires flushing of pockets and dead legs. The third "should" requires that attention be given to removal of solution. The forth "should" requires system to be sealed.	When alkaline cleaning is performed, it will be accomplished in accordance with the requirements of Nuclear Power Engineering.
11.	Subsection 7.2.3	The first "should" requires flushing to remove chelating agents. The second "should" requires flushing of pockets and deadlegs. The third "should" requires that attention be given to removal of solution. The forth "should" requires system to be sealed.	When chelate cleaning is performed, it will be accomplished in accordance with the requirements of Nuclear Power Engineering.
	ANSI N45.2.2, "...Packaging, Shipping, Receiving, Storage, and Handling...".		
12.	Subsection 4.3.6	Requires location and stacking limits to be specified on crates and boxes.	Consistent with the provisions of ANSI N45.2.2, 1972 Appendix "A", A.3.9.6 (e), such requirements will be specified, "as appropriate".

TABLE B

ITEM NO.	REGULATORY GUIDE / ANSI STD. REFERENCE	GUIDELINE	INTERPRETATION / ALTERNATE
	ANSI N45.2.2, "...Packaging, Shipping, Receiving, Storage, and Handling...".		
13.	Appendix A, A.3.5.2. (1), (a)	Limits halogen and sulphur content of tape.	Nuclear Power Engineering may allow the use of tapes containing greater amounts of halogen after appropriate evaluation.
	ANSI N45.2.9, 1974 "...Records..."		
14.	Subsection 3.2.2	The second "should" requires compatibility between the organization's system and the owner's system.	Special compatibility requirements of organization's records index system will be identified, where necessary, in procurement documents.
15.	Subsection 5.6	The first "should" requires that records shall be protected by NFPA, Class A, four hour minimum rated facility.	See Table A, Page A-16, #52.
16.	Subsection 7.3	Requires that non-permanent records be retained as specified in Appendix A.	Procedures will identify retention times of non-permanent records.
17.	Regulatory Guide 1.58, Revision 1, 9.80"...Examination and Testing Personnel"	Endorses the recommendations and requirements of ANSI N45.2.6, 1978.	See Table A, Page A-13, #40.

TABLE B

ITEM NO.	REGULATORY GUIDE / ANSI STD. REFERENCE	GUIDELINE	INTERPRETATION / ALTERNATE
18.	ANSI N45.2.5, 1974 "...Concrete... Structural Steel..."	The requalification procedure for cadweld splices should be identical to the original qualification procedure.	The content of the requalification procedure shall be determined b Nuclear Power Engineering.

TABLE B

ITEM NO.	REGULATORY GUIDE / ANSI STD. REFERENCE	GUIDELINE	INTERPRETATION / ALTERNATE

Attachment II

Summary of Changes to QAPD pages.

The Change Number below refers to the footnote and page of the change in the QAPD.

Change Number	Explanations
1 page 2	Throughout the document "designated alternate," "or designee" has been removed. These terms have been replaced with this sentence which denotes the corporate policy for designating others to perform functions or assume responsibilities of position titles during an individuals absence or temporary reassignment.
2 page 2	The reporting chain of the Department Manager, Nuclear Projects has been revised. Previously the Department Manager, Nuclear Projects reported to the Vice President, Maintenance and Construction. Now the Department Manager, Nuclear Projects reports to the Chief Engineer, Nuclear Power Engineering. The role of Maintenance and Construction as a major organization participating in this program has been realigned with the change in reporting chain of Department Manager, Nuclear Projects. The role of Purchasing as a major organization has been realigned with the transfer of these function to Nuclear Power Material Procurement.
3 page 2 Chart C	The reporting chain of the Department Manager, System Engineering and analysis has been revised and the title changed to Department Manager, Site Engineering. Previously, The Department Manager, System Engineering and Analysis reported to the Vice President, Nuclear Power. Now the Department Manger, System Engineering and Analysis reports to the Chief Engineer, Nuclear Power Engineering. The title of the Vice President, Engineering (Central Engineering) has been changed to Vice President, Generation Engineering. The reporting chain of the Department Manager, Nuclear Projects has been revised. Previously the Department Manager, Nuclear Projects reported to the Vice President, Maintenance and Construction. Now the Department Manager, Nuclear Projects reports to the Chief Engineer, Nuclear Power Engineering. The functions of these groups as they relate to the support of Indian Point 2 remains unchanged.
4 page 2	Throughout the document "designated alternate," "or designee" has been removed. These terms have been replaced with the sentence identified in note 1, which denotes the corporate policy for designating others to perform functions or assume responsibilities of position titles during an individuals absence or temporary reassignment.
5 page 2	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
6 page 2	The title of the Vice President, Engineering (Central Engineering) has been changed to Vice President, Generation Engineering. The reporting chain of the Department Manager, System Engineering and analysis has been revised and the title changed to Department Manager, Site Engineering. Previously, The Department Manager, System Engineering and Analysis reported to the Vice President, Nuclear Power. Now the Department Manger, System Engineering and Analysis reports to the Chief Engineer, Nuclear Power Engineering who reports to

the Vice President, Generation Engineering. The title of the Vice President, Engineering (Central Engineering) has been changed to Vice President, Generation Engineering. The reporting chain of the Department Manager, Nuclear Projects has been revised. Previously the Department Manager, Nuclear Projects reported to the Vice President, Maintenance and Construction. Now the Department Manager, Nuclear Projects reports to the Chief Engineer, Nuclear Power Engineering. The functions of these groups as they relate to the support of Indian Point 2 remains unchanged. The Configuration Management Organization functions which previously reported to the Department Manager, Site Services have been moved to report to the Chief Engineer, Nuclear Power Engineering. The section managers of each of the discipline engineering projects and program now report through the Department Manager, Design Engineering to the Chief Engineer, Nuclear Power Engineering. These changes are depicted in Charts A, B, and C.

7 page 3

The title of the Department Manager, Nuclear Quality Assurance has been changed to the General Manager, Nuclear Quality Assurance and Oversight. The Sections reporting to the General Manager, Nuclear Quality Assurance and Oversight have been increased to four from three.

8 page 3

Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.

9 page 3

Clarified to indicate that the composition of the Nuclear Facilities Safety Committee (NFSC) may include cognizant personnel from both within and outside of the Company.

10 page 3
11 page 3
12 page 3

The reporting chain of the Manager, Field Engineering has been revised. Previously the Manager, Field Engineering reported directly to the Chief Engineer, Nuclear Power Engineering. Now the Manager, Field Engineering reports to the Department Manager, Site Engineering. The functional responsibilities previously described for the Manager, Field Engineering and the Department Manager, System Engineering and Analysis have been combined under the Department Manager, Site Engineering. Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.

13 page 3

Previously the Department Manager, Nuclear Projects reported to the Vice President, Maintenance and Construction. Now the Department Manager, Nuclear Projects reports to the Chief Engineer, Nuclear Power Engineering who reports to the Vice President, Generation Engineering. Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.

14 page 3

Nuclear Power Maintenance or Instrumentation and Control may perform selected modifications in addition to Nuclear Projects. Added this clarification.

15 page 4

Changed to delete Nuclear Projects procurement of material through purchasing. Procurement of materials equipment and services for Indian Point is through Nuclear Power Material Procurement. Deleted Nuclear Projects responsibility to perform receipt inspection. This activity is performed by Nuclear Power Material

	Procurement.
16 Page 4	The reporting chain of the Manager, Field Engineering has been revised. Previously the Manager, Field Engineering reported directly to the Chief Engineer, Nuclear Power Engineering. Now the Manager, Field Engineering reports to the Department Manager, Site Engineering. The functional responsibilities previously described for the Manager, Field Engineering and the Department Manager, System Engineering and Analysis have been combined under the Department Manager, Site Engineering. Changes indicated by these footnotes are largely editorial and are not substantial. These were activities described earlier and have been deleted from this location.
17 page 4	Added functions of Department Manager, Configuration Management. This position previously reported to the Department Manger, Site Services and now reports to the Chief Engineer, Nuclear Power Engineering.
18 page 4 19 page 4	The role of Purchasing as a major organization has been realigned with the transfer of these functions to Nuclear Power Material Procurement. Changed to delete Nuclear Projects procurement of material through purchasing. Procurement of materials equipment and services for Indian Point is through Nuclear Power Material Procurement.
20 page 4	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
21 page 5	Nuclear Quality Assurance certifies the NDE personnel. This was previously performed by the Manager of Nuclear Power Test and Performance as well.
22 page 5	Deleted Nuclear Projects which is part of Nuclear Power Engineering and Operations and Maintenance which are part of Nuclear Power. Added Central Stores and Nuclear Power. These changes clarify the organizational reporting relationships.
23 page 5 24 page 5 25 page 6 26 page 6 27 page 6	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
28 page 6	Inspections of Maintenance and Modification activities and receipt inspections will not be performed by Nuclear Projects. These inspections will be performed by Nuclear Quality Assurance or Material Procurement
29 page 7 30 page 7 31 page 7	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
32 page 8 33 page 9	Revised Title of Manager Regulatory Affairs to Department Manager, Nuclear Safety and Licensing and clarified other Manager titles. Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant

	words.
34 page 10	Sentence was revised to indicate those new procedures and procedure changes, which change the procedures' intent, are reviewed by the Station Nuclear Safety Committee (SNSC).
35 page 10 36 page 10 37 page 11 38 page 11	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
39 page 11 40 page 11 41 page 11 42 page 11	Added Station Administrative Orders and Administrative Directives to the list of procedures reviewed and updated through continuing review processes which was changed from self-assessment processes. Note the requirement for biennial reviews remain.
43 page 12 44 page 12 45 page 12 46 page 12 47 page 12 48 page 12 49 page 12 50 page 12	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
51 page 12	Other sections in addition to Test and Performance may determine test requirements. Operations, Reactor Fuel Engineering, or Computer Applications may also determine test requirements.
52 page 12 53 page 13 54 page 14	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
55 page 14	Added Work Week Managers to list of positions that may authorize work orders.
56 page 14 57 page 14 58 page 14	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
59 page 14	Throughout the document "designated alternate," "or designee" has been removed. See Note 1.
60 page 15 61 page 15 62 page 15	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
63 page 15	The title of the Nuclear Projects QC Coordinators/Planners has been changed. Deleted the words QC Coordinators/ from all locations since these planners do not perform QC inspection functions.
64 page 15 65 page 15	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles,

66 page 15 67 page 15	procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
68 page 16 69 page 17	Since engineers performing major, minor or DOE modifications as delineated in this paragraph can belong to either Site or Design Engineering the title Discipline was deleted.
70 page 17 71 page 17	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
72 page 17 73 page 18 74 page 18 75 page 18 76 page 18	Deleted the words QC Coordinators/ from all locations since these planners do not perform any QC inspections. Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
77 page 18 78 page 18	The Nuclear Quality Assurance QC Inspectors perform the inspection function for modifications. Deleted QC Coordinators function from Nuclear Projects Planners title.
79 page 18	This sentence was added to clarify that Nuclear QA or appropriately qualified vendors will perform the inspection and NDE functions for Nuclear Projects. These functions will not be performed by Nuclear Projects personnel.
80 page 18 81 page 18	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
82 page 18	Test procedures may be developed by other sections with specific qualifications for the systems to be tested. Sentence was revised to clarify that test procedures are developed and approved by Computer Applications or Reactor and Fuel Engineering in addition to Test and Performance.
83 page 19	Test procedures may be performed by other sections with specific qualifications for the systems to be tested. Sentence was revised to clarify that test results are reviewed by Operations, Computer Applications or Reactor and Fuel Engineering in addition to Test and Performance.
84 page 19 85 page 20	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
86 page 20	Paragraph was clarified to indicate that Operations personnel are also responsible for detecting and reporting aberrant behavior.
87 page 20 88 page 20	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
89 page 20	Changed to clarify that procedures to control cleanliness of open primary systems

	are prepared by Nuclear Power Generation.
90 page 21	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words. The first two sentences of paragraph 5 in this section were deleted since they duplicate information contained in paragraph 2.
91 page 22	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words. Deleted the words QC Coordinators/ from all locations since these planners do not perform any QC inspections.
92 page 22	The role of Purchasing as a major organization has been realigned with the transfer of these functions to Nuclear Power Material Procurement.
93 page 23	Deleted paragraph 4 to clarify that Nuclear Projects does not process procurement documents directly to vendors. Nuclear Projects procurement documents are processed through Nuclear Power Material Procurement.
94 page 23 95 page 23	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
96 page 23	Clarified to describe vendor qualification requirements for both material and services.
97 page 23	The role of Purchasing as a major organization has been realigned with the transfer of these functions to Nuclear Power Material Procurement.
98 page 23	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
99 page 24	Clarified to describe technical evaluations of vendors by Nuclear Power Engineering for both material and services.
100 page 24	Paragraph was added to clarify that in addition to evaluation vendors by NQA personnel, NQA may evaluate vendors by reviewing the results of vendor evaluations performed by other utilities which participate in industry efforts such as those coordinated by the Nuclear Utility Procurement Initiative Committee (NUPIC).
101 page 24	Deleted paragraph 7 in this section to clarify the Nuclear Projects does not receipt inspect since all items are procured through Nuclear Power Material Procurement who performs receipt inspections.
102 page 24	Modified paragraph to clarify that some storage may occur on-site.
103 page 25	Changes clarified those personnel who are designated to transfer inspection status identification.

104 page 25	Clarified to show that marking and identification procedures are prepared only by Nuclear Power Engineering personnel.
105 page 26	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
106 page 27	Nuclear Projects does not perform receipt inspection or prepare and maintain records. Only personnel in Nuclear Power and Central Stores are responsible for these activities.
107 page 28	The Nuclear Quality Assurance department performs NDE. Some individuals performing NDE previously reported to the Manager of Nuclear Power Test and Performance.
108 page 28	The role of Purchasing as a major organization has been realigned with the transfer of these functions to Nuclear Power Material Procurement.
109 page 28	Clarified sentence to show that reinspection or retesting in an alternate manner requires Nuclear Power Engineering approval.
110 page 28 111 page 28 112 page 28	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
113 page 28	The role of Maintenance and Construction as a major organization participating in this program has been realigned with the change in reporting chain of Department Manager, Nuclear Projects. Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
114 page 29 115 page 30	Changes indicated by these footnotes are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
116 page 30	Clarified those groups performing inspections, tests and examinations. Maintenance, Instrument and Control, and Nuclear Projects personnel do not perform inspections, tests and examinations.
117 page 30	Changes indicated by this footnote are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
118 page 31	Clarified sentence to show the review of welding process qualification documents by Nuclear Power Engineering Personnel. Changes indicated are largely editorial and are not substantial. These include such items as clarifying, correcting or updating position titles, procedural titles, changing lowercase letters to uppercase or vice-versa and eliminating redundant words.
119 page 31	For welds performed at Con Edison's Van Nest Shops Maintenance and

	Construction performs these inspection with the Maintenance and Shop Operations QC Inspectors.
120 page 31	The role of Maintenance and Construction as a major organization participating in this program has been realigned with the change in reporting chain of Department Manager, Nuclear Projects. Nuclear Power Quality Control inspectors perform inspections of contractor welds when the contractor has no NDE program.
121 page 31	The role of Maintenance and Construction as a major organization participating in this program has been realigned with the change in reporting chain of Department Manager, Nuclear Projects.
122 page 31	The section managers of each of the discipline engineering projects and program now report through the Department Manager, Design Engineering to the Chief Engineer, Nuclear Power Engineering. Changed the titles to reflect the specific organization responsible for performing these functions.
123 page 31	The reporting chain of the Manager, Field Engineering has been revised. Previously the Manager, Field Engineering reported directly to the Chief Engineer, Nuclear Power Engineering. Now the Manager, Field Engineering reports to the Department Manager, Site Engineering.
124 page 31	The section managers of each of the discipline engineering projects and program now report through the Department Manager, Design Engineering to the Chief Engineer, Nuclear Power Engineering.
125 page 31	The General Manager, Nuclear Quality Assurance and Oversight certifies the Corporate NDE level III. This position previously reported to the Manager of Nuclear Power Test and Performance.
126 page 31	Sentence was revised to clarify that qualification and certification of NDE personnel is the responsibility of the General Manager, Nuclear Quality Assurance.
127 page 32	Test procedures may be developed by other sections with specific qualifications for the systems to be tested. Sentence was revised to clarify that test procedures are developed and approved by Computer Applications or Reactor and Fuel Engineering in addition to Test and Performance.
128 page 32	Other sections in addition to Test and Performance may prepare test procedures. Changed from Test and Performance to responsible section to clarify who sends test procedures to SNSC for review.
129 page 33	Throughout the document Operations Watch Supervisor was changed to Senior Watch Supervisor.
130 page 33	Nuclear Fuel is now procured by Reactor and Fuel Engineering which reports to Site Engineering and Nuclear Power Engineering.
Appendix A, Item 4	Secondary Coolant System was revised to indicate that the only parts of the Independent Electrical Overspeed Protection System that are Class A are those portions of the associated Electric Feeds.
Appendix A, Item 48	Sodium hydroxide was replaced with trisodium phosphate for use in the Containment Spray System.

Table A, Item 73	Corrected item 73 typographical error from ANSI 45.2.12 to ANSI 45.2.13.