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May 29, 1980
IPN-80-52

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Operating Reactors

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Quality Assurance Program Review

Dear Sir:

In response to your letter of April 8, 1980 on the subject item, enclosed please find the Authority responses to your request for information on our Quality Assurance program. The Authority has responded to your request in a manner which provides information but which does not constitute the proper format for a formal Quality Program commitment. Therefore, the Authority does not consider the responses to be a part of our presently NRC approved Quality Assurance Program commitments.

Very truly yours,

George T. Berry
President and
Chief Operating Officer

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50-286

QUALITY ASSURANCE PROGRAM REVIEW

Received wth dtd 5/29/80

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Request 1

Describe the extent to which the structures, systems, components, and activities under the control of the QA program include all items and activities affecting safety addressed in Regulatory Guides 1.26 and 1.29 and in 10 CFR Appendix A.

Response:

The safety-related structures, systems and components under the control of the QA program were submitted with our August 9, 1977 letter to the NRC in Table 17.2.2-3.

The design basis for the plant at the operating license stage did not address Regulatory Guides 1.26 and 1.29. However, the structures, systems and components important to safety, as described in 10CFR50, Appendix A, are included in the abovementioned Table.

Request 2

Identify the organization(s) responsible for the review, documented concurrence, issuance, and maintenance of the list in item 1 and describe QA involvement in these activities.

Response:

The organizations responsible for the review, documented concurrence, issuance and maintenance of the Authority's list, identified in our response to Request 1, is the Plant Technical Services Department and the QA Department.

Plant Administrative Procedure (AP-32) entitled "Reclassification of Plant Systems, Structures and Components" provides a mechanism for reclassifying items from safety related to non safety related and from non safety related to safety related. Whenever an item is reclassified from safety related to non safety related, reviews are required of the onsite Quality Assurance organization and the Plant Operations Review Committee (PORC).

The list is maintained in Authority Quality Assurance Procedure (QAP2.1).

Request 3

Identify the organization(s) responsible for determining whether or not spare and replacement parts affect safety and describe the criteria for this determination.

Response:

The organizations involved in the identification of whether a spare or replacement part affects safety are the Plant Technical Services Department and the onsite QA organization.

Spare and replacement parts are considered safety related when they are part of a structure, system or component on the list submitted with our August 9, 1977 letter to the NRC in Table 17.2.2-3. This is the basis for day-to-day identification for replacement purposes.

Reclassification of safety-related parts and components is accomplished as stated in Request (2).

Request 4

Describe how personnel involved in QA and plant operations, maintenance, and modifications differentiate between those items (including spare and replacement parts) that affect safety and fall under the control of the QA program and those that do not.

Response:

The Authority's Quality Assurance Program and Procedures Manuals have been distributed to personnel involved in the performance of plant operations, maintenance and modifications as well as Quality Assurance. Therefore, differentiation is accomplished as delineated in our response to Request 3.

Plant equipment, components and materials that are classified as safety related are separated from those that are non safety related in Authority storage areas. The safety-related items are identified by a marking system which is utilized in storage, release for installation and until finally installed.

Administrative Procedure AP-28, "Control and Identification of Purchase Material", provides the necessary controls.

Request 5

Describe in detail how each of the following controls is applied to activities including shutdown, startup, emergency actions, maintenance, and modifications:

- a) Independent inspection, verification, and surveillance (Tech Specs and QA) activities including those performed by the QA organization.
- b) Documented results of the independent inspection, verifications, and surveillance activities are filed and maintained for future reference and audit purposes.
- c) Independent evaluation and verification of documented results of activities to assure that they are acceptable prior to releasing a structure, system, or component for operation or prior to proceeding to the next procedural step.
- d) Utilization of procedures at the area where the activity is being carried out and followed step-by-step rather than performing the activity by memory without the procedure at hand.
- e) Utilization of checklists which delineate each important action to take place, with space provided to document that the action has been completed.
- f) Review and approval of implementing procedures by technically qualified personnel and the QA organization prior to use.

Response:

- a) Verifications and surveillance (Tech. Spec. Tests) activities are performed by the operating organization for startup, shutdown and emergency actions in accordance with the plant administrative procedures, operating procedures, and surveillance test procedures. Independent inspections are performed by QA on selected modes of plant operation, maintenance, and modification activities.
- b) Results are documented in accordance with operating and QA organization procedures and are filed and maintained for future reference and audit purposes.
- c) The final evaluation and verification, prior to release of structure system or component for operations, is accomplished by a retest program. Documented results of the test are verified and subsequently evaluated and are filed for future reference and audit program.

Request 5 -(Response Cont.)

When applicable, activities governed by prerequisites are verified prior to accomplishing a subsequent step.

- d) Procedures are followed step-by-step as required by Administrative Procedure No. 4, Procedure Adherence and Use.
- e) Various plant procedures require the use of checklists identifying important actions which must be taken and provisions for sign-off when each action has been completed.
- f) See response to Request #16.

Request 6

Describe the requirements and methodology for determining how and to what extent the QA program will be applied to specific items and activities, and describe QA involvement in this area. Specific attention should be given to inspection, verification, and surveillance by the QA organization.

Response:

The Authority's QA program is applied, as a minimum, to safety-related structures, systems and components identified in our response to Request 1. The degree and depth of application of the program is determined by the QA organization with assistance as required from technical disciplines and is consistent with the importance, complexity and quantity of the product or services provided.

The program is applied to the extent applicable to the item or service involved, including control of such activities as design, procurement, supplier qualification, source/receipt inspection, installation and testing. The Authority's QA organization provides for, as required, audits, source inspection, inspection upon receipt at the plant and inspection during installation and surveillance of selected in-plant tests that may be performed.

The depth of the surveillance program is consistent with the established level of importance of the item which is reflected by the attributes of the inspection and/or audit checklists.

Request 7

Provide the staff size for both the offsite and onsite QA organizational units responsible for implementing the QA program for Indian Point No. 3.

Response:

Figure 17.2.1-1 of our submittal to the NRC of March 16, 1977 depicts the Authority QA organization.

The Authority's present QA Department, which provides support personnel for the operation of IP unit #3, is as follows:

Headquarters

- *Director - Quality Assurance
- Quality Assurance Project Engineer
- Quality Assurance Engineer - Headquarters
- *(4) Quality Assurance Engineers - Project Support (1 presently unfilled - 2 positions authorized January, 1980)
- *Quality Assurance Engineer - NDE/MTL
- *Quality Assurance Engineer - Nuclear Fuel
- *Quality Assurance Engineer - Program Maintenance
- *Quality Assurance Engineer - Component Performance (presently unfilled - position authorized January, 1980)

Onsite QA Staff

- Site Quality Assurance Engineer
- (3) Quality Assurance Engineer (1 presently unfilled - 1 position authorized January, 1980)
- Quality Control Supervisor
- (4) Quality Control Inspectors (1 presently unfilled - 1 position authorized January, 1980)

*Personnel filling these positions service both Authority Nuclear Operating Plants on an as-needed basis.

The Authority Quality Assurance Department has a contract with an outside organization which provides qualified QA/QC personnel. Contractor personnel are available on short notice and are utilized whenever necessary to supplement the Authority QA/QC staff. These services have been used only during refueling outages, forced outages or the accomplishment of special tasks.

Request 8

Describe criteria for determining the onsite QA/QC staff size and the extent of its involvement in plant activities. This description should address the participation of these personnel during shift change and during each shift.

Response:

The primary criteria for determining the size of the onsite QA/QC staff is the workload required to meet our commitments in implementing the QA program. A summary of the extent of this involvement was submitted to the NRC with our letter of March 16, 1977 and is contained in Section 17.2.1.5E. In addition to that commitment, the QA organization has included, as part of our comprehensive audit program, the implementation of audits in those areas described in the plant technical specifications and which are listed as audit responsibilities for the Safety Review Committee (SRC).

QA department evaluations include manpower needs, and in January of 1980, Authority management authorized the addition of (3) QA Engineers to the headquarters staff, (1) QA Engineer and (1) QC Inspector for the Indian Point 3 onsite QA/QC staff and (2) QC Inspectors for the FitzPatrick Plant onsite QA/QC staff, which were requested by the Director - Quality Assurance

During day-to-day operations, QA/QC personnel are not normally assigned to shifts. However, should the need arise for QA/QC personnel to monitor activities performed during an off shift, arrangements will be coordinated with the plant staff. In addition, QA/QC personnel are on call should the need for their services be required. During refueling outages, Authority QA/QC personnel work all shifts and provide supervision over the QA/QC personnel supplied by our contractor for such services. This contracting for these services is delineated in response #7.

Request 9

Describe provisions which assure that the onsite QA organization attends and participates in daily staff meetings associated with planning the daily work schedules for the operations, maintenance, inservice inspection, tests, and modification. The involvement of the QA organization in these meetings should be to the extent of providing QA/QC input as necessary and keeping current of plant activities so that QA actions for the day can be properly identified and planned.

Response:

During refueling or other outages, meetings are held on a daily basis. QA personnel attend these meetings to provide QA/QC input as necessary and keep current of ongoing activities.

QA personnel attend outage planning meetings held during normal operations. Coordination between plant departments and QA are performed on an as needed basis to meet the requirement of current activities.

Request 10

Indicate the educational requirements and number of years of QA and nuclear technical experience required of QA/QC management/supervision.

Response:

Table 17.2.2-1 on page 17.2-43 of our submittal to the NRC of March 16, 1977 provides both the educational and experience requirements of Authority QA/QC personnel. This information is also contained in Authority Quality Assurance Procedure (QAP 1.1).

In addition, Authority QA/QC personnel increase their levels of proficiency by attendance at various industry technical seminars and comprehensive technical training programs presented by such major vendors as Westinghouse and General Electric.

Request 11

Describe in detail the extent of the QA Director's involvement in the QA related activities at the site relative to operations, maintenance, modifications, and inservice inspection. Of particular interest is the frequency and depth of his participation at the site to assure that his knowledge of the effectiveness of the QA program is current; that he takes the necessary action to verify the plant and QA staff are effectively applying good QA controls; and all personnel have the proper attitude and are applying the necessary attention to detail.

Response:

The Director - QA and/or the QA Project Engineer are directly involved with activities at the plant to the extent necessary to assure that the elements of the QA program implemented at the site are in accordance with program requirements. This involvement includes covering activities such as plant operations, maintenance, modifications, inservice inspection, emergency plan, security, fire protection, refueling, handling of radioactive waste, and other elements of operations identified by Appendix B to 10CFR50, and which are controlled by the QA program.

The frequency of participation at the site by the Director - QA and/or the QA Project Engineer vary with the ongoing activities at the plant. During the early phases of operations, such visits were as frequent as once a week to provide the necessary direction for implementation of the program. When a satisfactory level of proficiency was achieved in carrying out the requirements of the program, the frequency of visits decreased to approximately once a month or less by the Director - QA, and approximately once every other week by the QA Project Engineer.

The depth of participation of the Director -QA and/or the QA Project Engineer is to whatever extent necessary to resolve problems identified by plant QA personnel and to review ongoing activities of the plant QA staff. These meetings include evaluations and assessments of QA program activities.

Request 12

Describe in more detail the provisions for controlling and maintaining as-built documents current to the plant configuration and for controlling the use of superseded as-built documents.

Response:

Section 17.2.5 and 17.2.6 of our submittal to the NRC of March 16, 1977 provides the information requested.

Control of drawings included those that are superseded and accomplished in accordance with Plant Administrative Procedure (AP-34) Processing Control and Filing of Documents.

Request 13

Within the indoctrination and training program described in Section 17.2.2.5, provide additional clarification relative to the qualification program for onsite and offsite personnel performing activities affecting safety.

Response:

The following sections of our submittal to the NRC of March 17, 1977 provide the information requested:

Appendix 17.2.0-1 1. Personnel Selection and Training Regulatory
Guide 1.8, March 1971
Section 13.1.1.3
Section 13.1.2.2 - page 13-9 - Training Coordination
Section 13.1.3
Section 13.2

The following data submitted to the NRC of August 9, 1977 provides the information requested:

Response to Question 422.2
Response to Question 422.5
Response to Question 422.6
Response to Question 422.7

Request 14

Describe provisions which assure that acceptance criteria will be established and documented to which individuals will be qualified and that proficiency tests will be given to demonstrate that they meet these criteria. Also address requalification.

Response:

See response to Request 13 and 15.

Request 15

Describe provisions which assure that a certification of qualification will be documented and maintained which clearly delineates the specific inspection, examination, test, or special process each person is qualified to perform.

Response:

See our response to Request 13.

The Quality Assurance Department maintains records of QA personnel in the following areas:

Auditor Qualifications to ANSI N45.2.23 and Quality Assurance Procedure (QAP 1.5)

QC Inspection Personnel to Regulatory Guide 1.58 which endorses ANSI N.45.2.6

Nondestructive examination in accordance with American Society for Nondestructive Testing "Recommended Practice" No. SNT-TC-IA and Authority Nondestructive Examination Procedure (NDEP 1.1)

Request 16

Provide a table which identifies organization responsibilities for the preparation; documented review, concurrence, and/or approval; and issuance of documents affecting safety. The table should include documents such as operating, maintenance, modification, calibration, fuel handling, testing and inservice inspection procedures and instructions; procurement documents; design change requests and design change notices; work authorizations; drawings; specifications; and nonconformance cause and corrective action report forms. Identify those documents requiring documented review and concurrence by the QA organization prior to use, and describe the depth of QA review. Confirm that the QA organization verifies that quality affecting documents have been prepared, reviewed, and approved in accordance with established procedures.

Response:

See attached matrix.

The following is the interpretation for the attached matrix:

O = Operations
M = Maintenance
TS = Technical Services
IC = Instrument & Control
RE = Radiological & Environmental
QA = Quality Assurance
P = Plant Operations Review Committee
SRC = Safety Review Committee
RM = Resident Manager
D = Applicable Dept. (Plant)
C = Contractor
N = Nuclear Operations (HQ)
S = Security
E = Engineering
PU = Purchasing (Plant)
CA = Contract Administration (HQ)
SP = Superintendent of Power

REQUEST 16

<u>Procedures</u>	<u>Preparation</u>	<u>Review</u>	<u>Concurrence</u>	<u>Approval</u>	<u>Issuance</u>
Operating	O	O	--	RM	O
Plant Administrative	D	D, QA, P	QA	RM	TS
Maintenance	M	M, QA, P	--	RM, M, QA	M
Modification	TS	TS, QA, P	--	TS, QA, RM	TS
Calibration	D	D	--	D	D
Surveillance Test	TS	TS, P	--	TS, RM	TS
Test	TS	TS, P	--	TS, RM	TS
Fuel Handling	O	O, P, QA	--	O, RM, QA	O
Inservice Inspection	C	N, C, TS, QA, P	--	C, QA, RM	TS
Emergency	RE	RE, QA, P	QA	RE, RM	RE
Security	S	S, P	--	S, RM	S
Health Physics	RE	RE, P	--	RE, RM	RE
<u>Other Documents</u>					
Work Authorizations	D	O	--	O	O
Drawings	C	E, C, TS, QA	--	C/TS	TS
Specifications	C	E, C, TS, QA	--	C/TS	E, TS
Procurement Documents (Plant)	PU	D, QA, RM	QA	RM/SP	PU
Nonconformance Reports (NCA's)	}				
Deficiency Report (DCAR's)					
Procurement Documents (HQ)	C/CA	C, CA, QA, E, N	--	C/CA	CA

See Response to Request 25

Request 17

Describe those provisions which assure that in cases where a design or design change is authorized to be released for use prior to verification, a justification for this action is documented and approved by management and the unverified portion of the design output document (and all other design output documents and items based on the unverified data) is identified as such and controlled.

Response:

The Authority's Quality Assurance Program does not have provisions for releasing designs or design changes prior to verification. Therefore, the design must be completed prior to implementation.

Request 18

Provide a statement that the procurement of spare and replacement parts for structures, systems, and components is subject to the current QA program controls and to technical requirements equal to or better than the original technical requirements.

Response:

Section 17.2.4.1, paragraph 2, on page 17.2-22 of our submittal to the NRC of March 16, 1977 provides the information requested. In addition, the requirements stated in our submittal have been translated into QA Procedure (QAP 4.1) entitled "Procurement Document Review".

Request 19

Describe the involvement of the QA organization in the review, concurrence, and control of vendors' nonconformances dispositioned "use as is" or "repair."

Response:

Section 17.2.15.1 in the first paragraph on page 17.2-38 and Section 17.2.7, paragraph 2, of our submittal to the NRC of March 16, 1977 provides the information requested.

In addition to the requirement stated in our submittal, the Authority incorporated a provision in procurement documents for major components for non conformance control such that the Authority becomes involved in the disposition of "use as is" or "repair" for the components.

Request 20

Describe the controls for identification, including the maintenance of identification, of materials, parts, and components that affect safety during the maintenance and operations phase.

Response:

The following sections of our submittal to the NRC of March 16, 1977 provide the information requested:

17.2.1.5A(15)

17.2.8

The requirements have been translated into Authority Plant Administrative Procedure (AP-28).

Request 21

Explain the criteria to be used in determining statistically valid sampling plans when used.

Response:

Section 17.2.10.1 of our submittal to the NRC of March 16, 1977 provides the information requested.

Example of recognized standard is MIL-STD 105-D, "Sampling Procedures and Tables for Inspection by Attributes".

Request 22

Describe the involvement of the QA organization in establishing, implementing, and assuring the effectiveness of the calibration program.

Response:

Review and concur with Administrative Procedure AP-17, "Calibration of Measuring and Test Equipment".

Qualify vendors utilized for calibrating Authority measuring and test equipment.

Perform audits of the cognizant operating departments and applicable vendors to assure implementation of the calibration program.

Request 23:

Describe the QA organization's involvement in the inspection and surveillance of the operational status of items that affect safety.

Response:

Section 17.2.14.2 of our submittal to the NRC of March 16, 1977 provides the information requested.

Request 24

Describe the involvement of the QA organization in the areas of plant security, radiation control, and fire protection.

Response:

The Authority Quality Assurance Department has included these areas as part of our comprehensive program of planned and systematic audits.

Request 25

Describe those provisions which assure that the QA organization concurs with the disposition of nonconforming items, corrective action, and close out of nonconformance reports.

Response:

Nonconformance and Corrective Action Reports (NCA's) and Deficiency and Corrective Action Reports (DCAR's) issued by the QA Department have provisions for concurrence with disposition as follows:

NCA's have provisions for sign off, indicating review and acceptance of the disposition by the Auditor and approval by the QA Supervisor. This is delineated in Quality Assurance Procedure (QAP 16.1).

DCAR's have provisions for sign off by QC inspector or QC supervisor for response acceptance, corrective action verification by QC inspector and final close out by QC supervisor. This is delineated in Quality Assurance Procedure (QAP 16.2).

NCA's and DCAR's are issued by the QA Department. Statements of disposition regarding planned corrective and preventive action and their accomplishment is the responsibility of the audited/inspected organization.

Request 26

Describe the extent that errors, malfunctions, and deficiencies relative to regulations, the FSAR, QA requirements, and specification requirements will be reported on a nonconformance report form.

Response:

When errors, malfunctions, and deficiencies relative to regulations, FSAR, QA requirements, and specification requirements are found as a result of audits, they are identified on Nonconformance and Corrective Action Reports (NCAS), and when found as a result of inspections, they are identified on Deficiency and Corrective Action Reports (DCAR's).

They are documented to the extent necessary to provide information in order that appropriate and complete corrective and preventive action can be taken, as applicable.

When applicable, such items are reported on plant occurrence reports for evaluation and, when appropriate criteria are not met, License Event Reports (LER's) are issued in accordance with Regulatory Guide 1.16 and the Plant Technical Specifications.

Request 27

Describe the extent to which PASNY's QA program for Indian Point No. 3 addresses the regulatory position in each of the following regulatory guides for future operational activities including maintenance and modifications.

- a) Regulatory Guide 1.8, Rev. 1, "Personnel Selection and Training" (endorses ANSI/ANS 3.1).
- b) Regulatory Guide 1.29, Rev. 3, "Seismic Design Classification."
- c) Regulatory Guide 1.33, Rev. 2, "Quality Assurance Program Requirements (Operation)" (endorses N18.7).
- d) Regulatory Guide 1.38, Rev. 2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants" (endorses N45.2.2).
- e) Regulatory Guide 1.39, Rev. 2, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants" (endorses N45.2.3).
- f) Regulatory Guide 1.64, Rev. 2, "Quality Assurance Requirements for the Design of Nuclear Power Plants" (endorses N45.2.11).
- g) Regulatory Guide 1.88, Rev. 2, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records" (endorses N45.2.9).
- h) Regulatory Guide 1.94, Rev. 1, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants" (endorses N45.2.5).
- i) Regulatory Guide 1.116, Rev. O-R, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems" (endorses N45.2.8).
- j) Regulatory Guide 1.123, Rev. 1, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants" (endorses N45.2.13).
- k) Regulatory Guide 1.144, (January 1979), "Auditing of Quality Assurance Programs for Nuclear Power Plants" (endorses N45.2.12)

Response:

Appendix 17.2.0-1 of our submittal to the NRC, dated March 16, 1977, addresses the following Regulatory Guides: 1.8, March 1971; 1.33, November 1972; 1.38, March 1973; 1.39, March 1973, and 1.64, October 1973.

For Regulatory Guide 1.29 see our response to request (1).

Request 27 (Response (Continued))

Regulatory Guide 1.88 - Authority commitment to this regulatory guide is under review.

We are presently not committed to the remaining regulatory guides (1.94, 1.116, 1.123 and 1.144) listed in your request. However, we are committed to and have implemented, when applicable, the ANSI Standards endorsed by those regulatory guides to the extent that they were delineated in WASH1283, Revision 1, dated May 24, 1974; WASH1309, dated May 10, 1974; and WASH1284, dated October 26, 1973.

The implementation section of Regulatory Guides 1.94, 1.116, 1.123 and 1.144 does not require implementation by the Authority, since our plants were licensed prior to the criteria specified therein.

Request 28

Describe the provisions which assure that responsible plant personnel are made aware of design changes/modifications which may affect the performance of their duties.

Response:

Section 13.2.1, 2. Lectures, item 1 of our submittal to the NRC of March 16, 1977, provides the information requested.

Plant Administrative Procedure (AP-12) "Modification", covers notification to responsible plant personnel of completion of modifications.

Request 29

Describe the provisions which assure that errors and deficiencies in approved design documents, including design methods (e.g., computer codes), that could adversely affect structures, systems, and components important to safety are documented and corrected.

Response:

Design Control activities have been delegated, on a case-by-case basis, to such organizations as United Engineers and Constructors and/or Westinghouse.

Their Topical Reports have been approved by NRR and implementation verified by I & E LCVIP group. Reference to these letters are published in LCVIP Quarterly Reports, Section III, "Approved Program" Listing.

Request 30

For design verification activities, provide a statement that the responsibilities of the verifier, the areas and features to be verified, the pertinent considerations to be verified, and the extent of documentation are identified in procedures.

Response:

See response to request 29.

Request 31

If the design verification method is only by test, clarify that the following provisions are included:

- a) Procedures provide criteria that specify when verification should be by test.
- b) Prototype, component or feature testing is performed as early as possible prior to installation of plant equipment, or prior to the point when the installation would become irreversible.
- c) Testing is performed under conditions that simulate the most adverse conditions as determined by analysis.

Response:

Authority responses to NRC Question 421.2, submitted with our letter to the NRC of August 9, 1977, provides the information requested.

Request 32

Clarify that procedures are established to assure that verified computer codes are certified and specified for a particular use.

Response:

See response to request 29.

Request 33

Provide a statement that the selection of suppliers is documented and filed. If an LCVIP letter of confirmation or the "CASE" Register is used to establish the qualifications of the supplier, the documentation should identify the "letter" or "audit" used.

Response:

Reports relating to qualification of vendors are filed in accordance with Quality Assurance Procedure (QAP 7.4).

LCVIP letters are listed in Section III, "Approved Program" Listing of LCVIP Quaterly Reports; therefore, we use this report as our documentation.

We are just initiating a program to use the CASE register, and appropriate audits will be filed when using this list for vendor qualifications.

Lists of our major contractors are sometimes used (i.e., A-E or NSSS) to select vendors. The major contractors retain evidence of these qualifications in their files.

Request 34

Describe the criteria for determining those processes that are controlled as special processes. Provide as complete a listing as possible of special processes, which are generally those processes where direct inspection is impossible or disadvantageous.

Response:

Criteria IX of Appendix B to 10CFR50 provides criteria for determination of special processes.

Presently special processes controlled at the plant are welding, heat treating, and nondestructive examination.

Request 35

Provide a statement that when inspections associated with normal operations (e.g., routine maintenance, surveillance, and tests) of the plant are performed by individuals other than those who performed or directly supervised the work, but are within the same group, the following controls are met:

- a) The quality of the work can be demonstrated through a functional test when the activity involves breaching a pressure retaining item.
- b) The qualification criteria for inspection personnel are reviewed and found acceptable by the QA organization prior to initiating the inspection.

Response:

Inspections are performed by the Quality Assurance Department and not by personnel within the group performing the work. In addition tests are performed by plant operations personnel qualified by the cognizant department heads. Selected surveillance audits of these activities are performed by the QA Department.

Request 36

Describe the provisions which assure that inspection results are documented, evaluated and their acceptability determined by a responsible individual or group.

Response:

Section 17.2.10, Table 17.2.2-1 and Appendix 17.2.0-1 (Regulatory Guide 1.58) of our submittal to the NRC on March 16, 1977 provides the information requested.

The Authority responses to Question 421.3 enclosed with Authority letter to the NRC of August 9, 1977 provides additional information.

These requirements are included in Quality Assurance Procedure (QAP 10.1).

Request 37

Clarify that procedures provide criteria for determining the accuracy requirements of inspection equipment and also when inspections are required.

Response:

Section 17.2.12 or our submittal to the NRC of March 16, 1977 provides the information requested.

Authority response to Question 421.4, enclosed with the Authority August 9, 1977 letter to the NRC, provides additional implementation.

The above requirements have been translated into Plant Administrative Procedure (AP-17).

Request 38

Describe the provisions for the storage of chemicals, reagents (including control of shelf life), lubricants, and other consumable materials important to safety.

Response:

Appendix 17.2.0-2 of our submittal to the NRC of March 16, 1977 provides identification of commitment to Regulatory Guide 1.38, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants".

Items stored at the plant are in accordance with this commitment. However, plant Radiation and Environmental Services Department chemistry procedures address shelf life of reagents.

Request 1

Describe the extent to which the structures, systems, components, and activities under the control of the QA program include all items and activities affecting safety addressed in Regulatory Guides 1.26 and 1.29 and in 10 CFR Appendix A.

Response:

The safety-related structures, systems and components under the control of the QA program were submitted with our August 9, 1977 letter to the NRC in Table 17.2.2-3.

The design basis for the plant at the operating license stage did not address Regulatory Guides 1.26 and 1.29. However, the structures, systems and components important to safety, as described in 10CRF50, Appendix A, are included in the abovementioned Table.

Request 2

Identify the organization(s) responsible for the review, documented concurrence, issuance, and maintenance of the list in item 1 and describe QA involvement in these activities.

Response:

The organizations responsible for the review, documented concurrence, issuance and maintenance of the Authority's list, identified in our response to Request 1, is the Plant Technical Services Department and the QA Department.

Plant Administrative Procedure (AP-32) entitled "Reclassification of Plant Systems, Structures and Components" provides a mechanism for reclassifying items from safety related to non safety related and from non safety related to safety related. Whenever an item is reclassified from safety related to non safety related, reviews are required of the onsite Quality Assurance organization and the Plant Operations Review Committee (PORC).

The list is maintained in Authority Quality Assurance Procedure (QAP2.1).

Request 3

Identify the organization(s) responsible for determining whether or not spare and replacement parts affect safety and describe the criteria for this determination.

Response:

The organizations involved in the identification of whether a spare or replacement part affects safety are the Plant Technical Services Department and the onsite QA organization.

Spare and replacement parts are considered safety related when they are part of a structure, system or component on the list submitted with our August 9, 1977 letter to the NRC in Table 17.2.2-3. This is the basis for day-to-day identification for replacement purposes.

Reclassification of safety-related parts and components is accomplished as stated in Request (2).

Request 4

Describe how personnel involved in QA and plant operations, maintenance, and modifications differentiate between those items (including spare and replacement parts) that affect safety and fall under the control of the QA program and those that do not.

Response:

The Authority's Quality Assurance Program and Procedures Manuals have been distributed to personnel involved in the performance of plant operations, maintenance and modifications as well as Quality Assurance. Therefore, differentiation is accomplished as delineated in our response to Request 3.

Plant equipment, components and materials that are classified as safety related are separated from those that are non safety related in Authority storage areas. The safety-related items are identified by a marking system which is utilized in storage, release for installation and until finally installed.

Administrative Procedure AP-28, "Control and Identification of Purchase Material", provides the necessary controls.

Request 5

Describe in detail how each of the following controls is applied to activities including shutdown, startup, emergency actions, maintenance, and modifications:

- a) Independent inspection, verification, and surveillance (Tech Specs and QA) activities including those performed by the QA organization.
- b) Documented results of the independent inspection, verifications, and surveillance activities are filed and maintained for future reference and audit purposes.
- c) Independent evaluation and verification of documented results of activities to assure that they are acceptable prior to releasing a structure, system, or component for operation or prior to proceeding to the next procedural step.
- d) Utilization of procedures at the area where the activity is being carried out and followed step-by-step rather than performing the activity by memory without the procedure at hand.
- e) Utilization of checklists which delineate each important action to take place, with space provided to document that the action has been completed.
- f) Review and approval of implementing procedures by technically qualified personnel and the QA organization prior to use.

Response:

- a) Verifications and surveillance (Tech. Spec. Tests) activities are performed by the operating organization for startup, shutdown and emergency actions in accordance with the plant administrative procedures, operating procedures, and surveillance test procedures. Independent inspections are performed by QA on selected modes of plant operation, maintenance, and modification activities.
- b) Results are documented in accordance with operating and QA organization procedures and are filed and maintained for future reference and audit purposes.
- c) The final evaluation and verification, prior to release of structure system or component for operations, is accomplished by a retest program. Documented results of the test are verified and subsequently evaluated and are filed for future reference and audit program.

Request 5 -(Response Cont.)

When applicable, activities governed by prerequisites are verified prior to accomplishing a subsequent step.

- d) Procedures are followed step-by-step as required by Administrative Procedure No. 4, Procedure Adherence and Use.
- e) Various plant procedures require the use of checklists identifying important actions which must be taken and provisions for sign-off when each action has been completed.
- f) See response to Request #16.

Request 6

Describe the requirements and methodology for determining how and to what extent the QA program will be applied to specific items and activities, and describe QA involvement in this area. Specific attention should be given to inspection, verification, and surveillance by the QA organization.

Response:

The Authority's QA program is applied, as a minimum, to safety-related structures, systems and components identified in our response to Request 1. The degree and depth of application of the program is determined by the QA organization with assistance as required from technical disciplines and is consistent with the importance, complexity and quantity of the product or services provided.

The program is applied to the extent applicable to the item or service involved, including control of such activities as design, procurement, supplier qualification, source/receipt inspection, installation and testing. The Authority's QA organization provides for, as required, audits, source inspection, inspection upon receipt at the plant and inspection during installation and surveillance of selected in-plant tests that may be performed.

The depth of the surveillance program is consistent with the established level of importance of the item which is reflected by the attributes of the inspection and/or audit checklists.

Request 7

Provide the staff size for both the offsite and onsite QA organizational units responsible for implementing the QA program for Indian Point No. 3.

Response:

Figure 17.2.1-1 of our submittal to the NRC of March 16, 1977 depicts the Authority QA organization.

The Authority's present QA Department, which provides support personnel for the operation of IP unit #3, is as follows:

Headquarters

- *Director - Quality Assurance
- Quality Assurance Project Engineer
- Quality Assurance Engineer - Headquarters
- *(4) Quality Assurance Engineers - Project Support (1 presently unfilled - 2 positions authorized January, 1980)
- *Quality Assurance Engineer - NDE/MTL
- *Quality Assurance Engineer - Nuclear Fuel
- *Quality Assurance Engineer - Program Maintenance
- *Quality Assurance Engineer - Component Performance (presently unfilled - position authorized January, 1980)

Onsite QA Staff

- Site Quality Assurance Engineer
- (3) Quality Assurance Engineer (1 presently unfilled - 1 position authorized January, 1980)
- Quality Control Supervisor
- (4) Quality Control Inspectors (1 presently unfilled - 1 position authorized January, 1980)

*Personnel filling these positions service both Authority Nuclear Operating Plants on an as-needed basis.

The Authority Quality Assurance Department has a contract with an outside organization which provides qualified QA/QC personnel. Contractor personnel are available on short notice and are utilized whenever necessary to supplement the Authority QA/QC staff. These services have been used only during refueling outages, forced outages or the accomplishment of special tasks.

Request 8

Describe criteria for determining the onsite QA/QC staff size and the extent of its involvement in plant activities. This description should address the participation of these personnel during shift change and during each shift.

Response:

The primary criteria for determining the size of the onsite QA/QC staff is the workload required to meet our commitments in implementing the QA program. A summary of the extent of this involvement was submitted to the NRC with our letter of March 16, 1977 and is contained in Section 17.2.1.5E. In addition to that commitment, the QA organization has included, as part of our comprehensive audit program, the implementation of audits in those areas described in the plant technical specifications and which are listed as audit responsibilities for the Safety Review Committee (SRC).

QA department evaluations include manpower needs, and in January of 1980, Authority management authorized the addition of (3) QA Engineers to the headquarters staff, (1) QA Engineer and (1) QC Inspector for the Indian Point 3 onsite QA/QC staff and (2) QC Inspectors for the FitzPatrick Plant onsite QA/QC staff, which were requested by the Director - Quality Assurance

During day-to-day operations, QA/QC personnel are not normally assigned to shifts. However, should the need arise for QA/QC personnel to monitor activities performed during an off shift, arrangements will be coordinated with the plant staff. In addition, QA/QC personnel are on call should the need for their services be required. During refueling outages, Authority QA/QC personnel work all shifts and provide supervision over the QA/QC personnel supplied by our contractor for such services. This contracting for these services is delineated in response #7.

Request 9

Describe provisions which assure that the onsite QA organization attends and participates in daily staff meetings associated with planning the daily work schedules for the operations, maintenance, inservice inspection, tests, and modification. The involvement of the QA organization in these meetings should be to the extent of providing QA/QC input as necessary and keeping current of plant activities so that QA actions for the day can be properly identified and planned.

Response:

During refueling or other outages, meetings are held on a daily basis. QA personnel attend these meetings to provide QA/QC input as necessary and keep current of ongoing activities.

QA personnel attend outage planning meetings held during normal operations. Coordination between plant departments and QA are performed on an as needed basis to meet the requirement of current activities.

Request 10

Indicate the educational requirements and number of years of QA and nuclear technical experience required of QA/QC management/supervision.

Response:

Table 17.2.2-1 on page 17.2-43 of our submittal to the NRC of March 16, 1977 provides both the educational and experience requirements of Authority QA/QC personnel. This information is also contained in Authority Quality Assurance Procedure (QAP 1.1).

In addition, Authority QA/QC personnel increase their levels of proficiency by attendance at various industry technical seminars and comprehensive technical training programs presented by such major vendors as Westinghouse and General Electric.

Request 11

Describe in detail the extent of the QA Director's involvement in the QA related activities at the site relative to operations, maintenance, modifications, and inservice inspection. Of particular interest is the frequency and depth of his participation at the site to assure that his knowledge of the effectiveness of the QA program is current; that he takes the necessary action to verify the plant and QA staff are effectively applying good QA controls; and all personnel have the proper attitude and are applying the necessary attention to detail.

Response:

The Director - QA and/or the QA Project Engineer are directly involved with activities at the plant to the extent necessary to assure that the elements of the QA program implemented at the site are in accordance with program requirements. This involvement includes covering activities such as plant operations, maintenance, modifications, inservice inspection, emergency plan, security, fire protection, refueling, handling of radioactive waste, and other elements of operations indentified by Appendix B to 10CRF50, and which are controlled by the QA program.

The frequency of participation at the site by the Director - QA and/or the QA Project Engineer vary with the ongoing activities at the plant. During the early phases of operations, such visits were as frequent as once a week to provide the necessary direction for implementation of the program. When a satisfactory level of proficiency was achieved in carrying out the requirements of the program, the frequency of visits decreased to approximately once a month or less by the Director - QA, and approximately once every other week by the QA Project Engineer.

The depth of participation of the Director -QA and/or the QA Project Engineer is to whatever extent necessary to resolve problems identified by plant QA personnel and to review ongoing activities of the plant QA staff. These meetings include evaluations and assessments of QA program activities.

Request 12

Describe in more detail the provisions for controlling and maintaining as-built documents current to the plant configuration and for controlling the use of superseded as-built documents.

Response:

Section 17.2.5 and 17.2.6 of our submittal to the NRC of March 16, 1977 provides the information requested.

Control of drawings included those that are superseded and accomplished in accordance with Plant Administrative Procedure (AP-34) Processing Control and Filing of Documents.

Request 13

Within the indoctrination and training program described in Section 17.2.2.5, provide additional clarification relative to the qualification program for onsite and offsite personnel performing activities affecting safety.

Response:

The following sections of our submittal to the NRC of March 17, 1977 provide the information requested:

Appendix 17.2.0-1 1. Personnel Selection and Training Regulatory
Guide 1.8, March 1971
Section 13.1.1.3
Section 13.1.2.2 - page 13-9 - Training Coordination
Section 13.1.3
Section 13.2

The following data submitted to the NRC of August 9, 1977 provides the information requested:

Response to Question 422.2
Response to Question 422.5
Response to Question 422.6
Response to Question 422.7

Request 14

Describe provisions which assure that acceptance criteria will be established and documented to which individuals will be qualified and that proficiency tests will be given to demonstrate that they meet these criteria. Also address requalification.

Response:

See response to Request 13 and 15.

Request 15

Describe provisions which assure that a certification of qualification will be documented and maintained which clearly delineates the specific inspection, examination, test, or special process each person is qualified to perform.

Response:

See our response to Request 13.

The Quality Assurance Department maintains records of QA personnel in the following areas:

Auditor Qualifications to ANSI N45.2.23 and Quality Assurance Procedure (QAP 1.5)

QC Inspection Personnel to Regulatory Guide 1.58 which endorses ANSI N.45.2.6

Nondestructive examination in accordance with American Society for Nondestructive Testing "Recommended Practice" No. SNT-TC-IA and Authority Nondestructive Examination Procedure (NDEP 1.1)

Request 16

Provide a table which identifies organization responsibilities for the preparation; documented review, concurrence, and/or approval; and issuance of documents affecting safety. The table should include documents such as operating, maintenance, modification, calibration, fuel handling, testing and inservice inspection procedures and instructions; procurement documents; design change requests and design change notices; work authorizations; drawings; specifications; and nonconformance cause and corrective action report forms. Identify those documents requiring documented review and concurrence by the QA organization prior to use, and describe the depth of QA review. Confirm that the QA organization verifies that quality affecting documents have been prepared, reviewed, and approved in accordance with established procedures.

Response:

See attached matrix.

The following is the interpretation for the attached matrix:

O = Operations
M = Maintenance
TS = Technical Services
IC = Instrument & Control
RE = Radiological & Environmental
QA = Quality Assurance
P = Plant Operations Review Committee
SRC = Safety Review Committee
RM = Resident Manager
D = Applicable Dept. (Plant)
C = Contractor
N = Nuclear Operations (HQ)
S = Security
E = Engineering
PU = Purchasing (Plant)
CA = Contract Administration (HQ)
SP = Superintendent of Power

REQUEST 16

<u>Procedures</u>	<u>Preparation</u>	<u>Review</u>	<u>Concurrence</u>	<u>Approval</u>	<u>Issuance</u>
Operating	O	O	--	RM	O
Plant Administrative	D	D, QA, P	QA	RM	TS
Maintenance	M	M, QA, P	--	RM, M, QA	M
Modification	TS	TS, QA, P	--	TS, QA, RM	TS
Calibration	D	D	--	D	D
Surveillance Test	TS	TS, P	--	TS, RM	TS
Test	TS	TS, P	--	TS, RM	TS
Fuel Handling	O	O, P, QA	--	O, RM, QA	O
Inservice Inspection	C	N, C, TS, QA, P	--	C, QA, RM	TS
Emergency	RE	RE, QA, P	QA	RE, RM	RE
Security	S	S, P	--	S, RM	S
Health Physics	RE	RE, P	--	RE, RM	RE
<u>Other Documents</u>					
Work Authorizations	D	O	--	O	O
Drawings	C	E, C, TS, QA	--	C/TS	TS
Specifications	C	E, C, TS, QA	--	C/TS	E, TS
Procurement Documents (Plant)	PU	D, QA, RM	QA	RM/SP.	PU
Nonconformance Reports (NCA's)	}	See Response to Request 25			
Deficiency Report (DCAR's)					
Procurement Documents (HQ)	C/CA	C, CA, QA, E, N	--	C/CA	CA

Request 17

Describe those provisions which assure that in cases where a design or design change is authorized to be released for use prior to verification, a justification for this action is documented and approved by management and the unverified portion of the design output document (and all other design output documents and items based on the unverified data) is identified as such and controlled.

Response:

The Authority's Quality Assurance Program does not have provisions for releasing designs or design changes prior to verification. Therefore, the design must be completed prior to implementation.

Request 18

Provide a statement that the procurement of spare and replacement parts for structures, systems, and components is subject to the current QA program controls and to technical requirements equal to or better than the original technical requirements.

Response:

Section 17.2.4.1, paragraph 2, on page 17.2-22 of our submittal to the NRC of March 16, 1977 provides the information requested. In addition, the requirements stated in our submittal have been translated into QA Procedure (QAP 4.1) entitled "Procurement Document Review".

Request 19

Describe the involvement of the QA organization in the review, concurrence, and control of vendors' nonconformances dispositioned "use as is" or "repair."

Response:

Section 17.2.15.1 in the first paragraph on page 17.2-38 and Section 17.2.7, paragraph 2, of our submittal to the NRC of March 16, 1977 provides the information requested.

In addition to the requirement stated in our submittal, the Authority incorporated a provision in procurement documents for major components for non conformance control such that the Authority becomes involved in the disposition of "use as is" or "repair" for the components.

Request 20

Describe the controls for identification, including the maintenance of identification, of materials, parts, and components that affect safety during the maintenance and operations phase.

Response:

The following sections of our submittal to the NRC of March 16, 1977 provide the information requested:

17.2.1.5A(15)
17.2.8

The requirements have been translated into Authority Plant Administrative Procedure (AP-28).

Request 21

Explain the criteria to be used in determining statistically valid sampling plans when used.

Response:

Section 17.2.10.1 of our submittal to the NRC of March 16, 1977 provides the information requested.

Example of recognized standard is MIL-STD 105-D, "Sampling Procedures and Tables for Inspection by Attributes".

Request 22

Describe the involvement of the QA organization in establishing, implementing, and assuring the effectiveness of the calibration program.

Response:

Review and concur with Administrative Procedure AP-17, "Calibration of Measuring and Test Equipment".

Qualify vendors utilized for calibrating Authority measuring and test equipment.

Perform audits of the cognizant operating departments and applicable vendors to assure implementation of the calibration program.

Request 23:

Describe the QA organization's involvement in the inspection and surveillance of the operational status of items that affect safety.

Response:

Section 17.2.14.2 of our submittal to the NRC of March 16, 1977 provides the information requested.

Request 24

Describe the involvement of the QA organization in the areas of plant security, radiation control, and fire protection.

Response:

The Authority Quality Assurance Department has included these areas as part of our comprehensive program of planned and systematic audits.

Request 25

Describe those provisions which assure that the QA organization concurs with the disposition of nonconforming items, corrective action, and close out of nonconformance reports.

Response:

Nonconformance and Corrective Action Reports (NCA's) and Deficiency and Corrective Action Reports (DCAR's) issued by the QA Department have provisions for concurrence with disposition as follows:

NCA's have provisions for sign off, indicating review and acceptance of the disposition by the Auditor and approval by the QA Supervisor. This is delineated in Quality Assurance Procedure (QAP 16.1).

DCAR's have provisions for sign off by QC inspector or QC supervisor for response acceptance, corrective action verification by QC inspector and final close out by QC supervisor. This is delineated in Quality Assurance Procedure (QAP 16.2).

NCA's and DCAR's are issued by the QA Department. Statements of disposition regarding planned corrective and preventive action and their accomplishment is the responsibility of the audited/inspected organization.

Request 26

Describe the extent that errors, malfunctions, and deficiencies relative to regulations, the FSAR, QA requirements, and specification requirements will be reported on a nonconformance report form.

Response:

When errors, malfunctions, and deficiencies relative to regulations, FSAR, QA requirements, and specification requirements are found as a result of audits, they are identified on Nonconformance and Corrective Action Reports (NCAS), and when found as a result of inspections, they are identified on Deficiency and Corrective Action Reports (DCAR's).

They are documented to the extent necessary to provide information in order that appropriate and complete corrective and preventive action can be taken, as applicable.

When applicable, such items are reported on plant occurrence reports for evaluation and, when appropriate criteria are not met, License Event Reports (LER's) are issued in accordance with Regulatory Guide 1.16 and the Plant Technical Specifications.

Request 27

Describe the extent to which PASNY's QA program for Indian Point No. 3 addresses the regulatory position in each of the following regulatory guides for future operational activities including maintenance and modifications.

- a) Regulatory Guide 1.8, Rev. 1, "Personnel Selection and Training" (endorses ANSI/ANS 3.1).
- b) Regulatory Guide 1.29, Rev. 3, "Seismic Design Classification."
- c) Regulatory Guide 1.33, Rev. 2, "Quality Assurance Program Requirements (Operation)" (endorses N18.7).
- d) Regulatory Guide 1.38, Rev. 2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants" (endorses N45.2.2).
- e) Regulatory Guide 1.39, Rev. 2, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants" (endorses N45.2.3).
- f) Regulatory Guide 1.64, Rev. 2, "Quality Assurance Requirements for the Design of Nuclear Power Plants" (endorses N45.2.11).
- g) Regulatory Guide 1.88, Rev. 2, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records" (endorses N45.2.9).
- h) Regulatory Guide 1.94, Rev. 1, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants" (endorses N45.2.5).
- i) Regulatory Guide 1.116, Rev. O-R, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems" (endorses N45.2.8).
- j) Regulatory Guide 1.123, Rev. 1, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants" (endorses N45.2.13).
- k) Regulatory Guide 1.144, (January 1979), "Auditing of Quality Assurance Programs for Nuclear Power Plants" (endorses N45.2.12)

Response:

Appendix 17.2.0-1 of our submittal to the NRC, dated March 16, 1977, addresses the following Regulatory Guides: 1.8, March 1971; 1.33, November 1972; 1.38, March 1973; 1.39, March 1973, and 1.64, October 1973.

For Regulatory Guide 1.29 see our response to request (1).

Request 27 (Response (Continued))

Regulatory Guide 1.88 - Authority commitment to this regulatory guide is under review.

We are presently not committed to the remaining regulatory guides (1.94, 1.116, 1.123 and 1.144) listed in your request. However, we are committed to and have implemented, when applicable, the ANSI Standards endorsed by those regulatory guides to the extent that they were delineated in WASH1283, Revision 1, dated May 24, 1974; WASH1309, dated May 10, 1974; and WASH1284, dated October 26, 1973.

The implementation section of Regulatory Guides 1.94, 1.116, 1.123 and 1.144 does not require implementation by the Authority, since our plants were licensed prior to the criteria specified therein.

Request 28

Describe the provisions which assure that responsible plant personnel are made aware of design changes/modifications which may affect the performance of their duties.

Response:

Section 13.2.1, 2. Lectures, item 1 of our submittal to the NRC of March 16, 1977, provides the information requested.

Plant Administrative Procedure (AP-12) "Modification", covers notification to responsible plant personnel of completion of modifications.

Request 29

Describe the provisions which assure that errors and deficiencies in approved design documents, including design methods (e.g., computer codes), that could adversely affect structures, systems, and components important to safety are documented and corrected.

Response:

Design Control activities have been delegated, on a case-by-case basis, to such organizations as United Engineers and Constructors and/or Westinghouse.

Their Topical Reports have been approved by NRR and implementation verified by I & E LCVIP group. Reference to these letters are published in LCVIP Quarterly Reports, Section III, "Approved Program" Listing.

Request 30

For design verification activities, provide a statement that the responsibilities of the verifier, the areas and features to be verified, the pertinent considerations to be verified, and the extent of documentation are identified in procedures.

Response:

See response to request 29.

Request 31

If the design verification method is only by test, clarify that the following provisions are included:

- a) Procedures provide criteria that specify when verification should be by test.
- b) Prototype, component or feature testing is performed as early as possible prior to installation of plant equipment, or prior to the point when the installation would become irreversible.
- c) Testing is performed under conditions that simulate the most adverse conditions as determined by analysis.

Response:

Authority responses to NRC Question 421.2, submitted with our letter to the NRC of August 9, 1977, provides the information requested.

Request 32

Clarify that procedures are established to assure that verified computer codes are certified and specified for a particular use.

Response:

See response to request 29.

Request 33

Provide a statement that the selection of suppliers is documented and filed. If an LCVIP letter of confirmation or the "CASE" Register is used to establish the qualifications of the supplier, the documentation should identify the "letter" or "audit" used.

Response:

Reports relating to qualification of vendors are filed in accordance with Quality Assurance Procedure (QAP 7.4).

LCVIP letters are listed in Section III, "Approved Program" Listing of LCVIP Quaterly Reports; therefore, we use this report as our documentation.

We are just initiating a program to use the CASE register, and appropriate audits will be filed when using this list for vendor qualifications.

Lists of our major contractors are sometimes used (i.e., A-E or NSSS) to select vendors. The major contractors retain evidence of these qualifications in their files.

Request 34

Describe the criteria for determining those processes that are controlled as special processes. Provide as complete a listing as possible of special processes, which are generally those processes where direct inspection is impossible or disadvantageous.

Response:

Criteria IX of Appendix B to 10CFR50 provides criteria for determination of special processes.

Presently special processes controlled at the plant are welding, heat treating, and nondestructive examination.

Request 35

Provide a statement that when inspections associated with normal operations (e.g., routine maintenance, surveillance, and tests) of the plant are performed by individuals other than those who performed or directly supervised the work, but are within the same group, the following controls are met:

- a) The quality of the work can be demonstrated through a functional test when the activity involves breaching a pressure retaining item.
- b) The qualification criteria for inspection personnel are reviewed and found acceptable by the QA organization prior to initiating the inspection.

Response:

Inspections are performed by the Quality Assurance Department and not by personnel within the group performing the work. In addition tests are performed by plant operations personnel qualified by the cognizant department heads. Selected surveillance audits of these activities are performed by the QA Department.

Request 36

Describe the provisions which assure that inspection results are documented, evaluated and their acceptability determined by a responsible individual or group.

Response:

Section 17.2.10, Table 17.2.2-1 and Appendix 17.2.0-1 (Regulatory Guide 1.58) of our submittal to the NRC on March 16, 1977 provides the information requested.

The Authority responses to Question 421.3 enclosed with Authority letter to the NRC of August 9, 1977 provides additional information.

These requirements are included in Quality Assurance Procedure (QAP 10.1).

Request 37

Clarify that procedures provide criteria for determining the accuracy requirements of inspection equipment and also when inspections are required.

Response:

Section 17.2.12 of our submittal to the NRC of March 16, 1977 provides the information requested.

Authority response to Question 421.4, enclosed with the Authority August 9, 1977 letter to the NRC, provides additional implementation.

The above requirements have been translated into Plant Administrative Procedure (AP-17).

Request 38

Describe the provisions for the storage of chemicals, reagents (including control of shelf life), lubricants, and other consumable materials important to safety.

Response:

Appendix 17.2.0-2 of our submittal to the NRC of March 16, 1977 provides identification of commitment to Regulatory Guide 1.38, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants".

Items stored at the plant are in accordance with this commitment. However, plant Radiation and Environmental Services Department chemistry procedures address shelf life of reagents.