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MARTIN,J.B. Region 5, Office of Director

SUBJECT: Forwards changes to FSAR Section 17.1B,for review.Changes delete duplication of effort between util & Bechtel quality organization during transition from const to operational phase.

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Mr. John B. Martin, Regional Administrator
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596-5368

September 18, 1985
ANPP-33515-EEVB/BJA

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528 (License No. NPF-41)/529/530
Proposed Change to PVNGS FSAR Chapter 17
File: 85-056-026; G.1.01.10

Dear Mr. Martin:

In accordance with 10CFR 50.55(f), ANPP is submitting a proposed change to the PVNGS FSAR Section 17.1B for your review and approval.

The proposed changes affect FSAR Section 17.1B and the affected FSAR pages are attached and the proposed changes are identified with a change bar.

The changes, identified herein, delete duplication of effort between ANPP and Bechtel Power Corporation quality organization during the transition from the construction phase to the operational phase. The specific changes are as follows:

1. Allow Bechtel Power Corporation access to ANPP purchased items without the issuance of a procurement document or performance of receipt inspection.
2. Refine the QA programmatic controls to identify the use of one project approved vendors list, under the control of ANPP, which includes ANPP vendor evaluations, QA Manual reviews, audits, inspections and surveillances.
3. Identify the potential use of ANPP personnel, or their contractors, to perform audit/inspection activities previously performed by Bechtel Power Corporation.

In addition to the aforementioned changes, this change reduces a commitment found in Section 17.1B of the FSAR to perform annual audits. ANPP will adopt the policy used in Chapter 17.2 to perform triennial audits. This change is consistent with Regulatory Guide 1.144, Revision 1. Additionally, it recognizes the change in phases for the project from a design/procurement phase to an operating phase. During the procurement phase when major purchases are made which have fabrication cycles over several years, it is appropriate to perform annual audits to ensure programmatic controls are implemented. This phase of the project has been completed. During the current phase, procurement is geared to spare and replacement parts with relatively short fabrication cycle. Annual audits are not appropriate because during the conduct of the audit there may be no PVNGS procurement activities occurring. Triennial audits augmented by source surveillances/inspections provide adequate assurances of vendors implementation of programmatic controls.

IE-43

Both FSAR Sections 17.1B and 17.2 are NRC approved programs and meet the requirements of 10CFR 50, Appendix B and the regulatory guidance committed to in FSAR Section 1.8. ANPP believes this is sufficient justification for your approval of the proposed change.

If you should have any questions concerning this matter, please contact Mr. W. F. Quinn of my staff.

Very truly yours,

EE Van Brunt Jr./JH

E. E. Van Brunt, Jr.
Executive Vice President
Project Director

EEVB/BJA/slh
Attachment

cc: R. P. Zimmerman
E. A. Licitra
A. C. Gehr
USNRC Document Control Desk, Washington, D. C.

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, Jerry G. Haynes, represent that I am Vice President of Nuclear Production of Arizona Nuclear Power Project, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority to do so, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true and correct.

Jerry G. Haynes
Jerry G. Haynes

Sworn to before me this 18 day of Sept, 1985.

Nora E. Meador
Notary Public

My Commission Expires:
My Commission Expires April 6, 1987

and who reports to management of the BPC. Quality policies and QA procedures of the responsible divisions are formulated or reviewed by the QA managers in the divisions who receive technical guidance from the BPC Manager of QA and report directly to management of their division. Quality Assurance practices for individual projects are implemented through the Project QA Manager who receives technical and administrative direction from Manager of Division QA and the QA Manager of Projects. Project department and division quality practices are subject to audit by QA at various levels.

Design verification includes checking within the project by individuals other than those who perform the original design and review and verification of technical adequacy of designs by the Chief Engineers or their technical staff who are independent of the project.

Supplier and subcontractor QC requirements are specified in the procurement specifications by engineering, which requires suppliers and subcontractors to execute appropriate quality programs. Verification of supplier/subcontractor compliance is provided by source surveillance and inspection at suppliers facilities by the Procurement Supplier Quality Department, or by field quality control for onsite subcontractors or by APS personnel or their agents. Also, surveillance and audit of these activities by QA personnel, the Procurement Supplier Quality Department staff, APS personnel or their agents, ~~and/or M&QS~~. Inspection of construction activities performed directly by Bechtel includes in-process controls and inspection of the work by formal QC verification inspection activities and audits by QA, supplemented by M&QS personnel as required.

When disputes arise from a difference of opinion between QA/QC personnel and other department personnel (Engineering, Procurement, QC, and Construction personnel) regarding project quality program matters the final authority rests with the PQAM, subject only to appeal to the Manager of Division QA by the Project

current status of vendor documents and copies of applicable vendor documents are formally transmitted to the construction site with provision for receipt acknowledgement.

The Project Construction organization at the jobsite employs standard prescribed procedures for control of the distribution of approved drawings, specifications, and other documents. These procedures include provisions for field receipt, review and distribution of approved documents and for appropriate marking or destruction of obsolete documents. P

The transmittal of drawings and specifications is controlled in accordance with procedures which include provisions to prevent inadvertent use of obsolete or superseded documents.

Documents such as instructions, procedures, specifications, drawings, procurement documents, inspection plans, inspection records, supplier manuals, nonconformance reports, supplier deviation disposition requests, corrective action reports, memoranda and correspondence are included in document control.

As part of their quality verification inspection program, field QC ensures that construction work is not performed if current approved design documents are not available. 12

Control of documents in the engineering and construction offices are regularly audited by project QA personnel.

Insert (A) → 17.1B.7 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES P

17.1B.7.1 <u>Supplier Evaluation and Selection</u>

Replace with Insert (B) →

Records of currently acceptable suppliers and subcontractors are maintained by procurement. These records identify suppliers and subcontractors who have demonstrated their conformance to the applicable criteria of 10CFR50, Appendix B, and their ability to provide quality material, equipment, or services, or have been established as acceptable by previous survey or audit. 12 P 12

Supplier and subcontractor records provide information on the scope of services and capability, and identify projects currently employing the supplier or subcontractor. Results of recent shop surveys and audits are also on file. Periodic reports identifying suppliers contained in these files are issued by Procurement Supplier Quality to interested groups within the divisions.

Procurement Supplier Quality Department procedures include provisions for source surveys that will be used to supplement data in a supplier's file in cases where the scope of services or quality requirements of new work exceed that for which the supplier was previously qualified. Also, in cases where new sources are being considered for selection, or when no work or report has been generated during the previous year.

Prior to award the following technical and quality requirements must be met.

A. Determination by Engineering that the source is responsive to the technical requirements of the specification

B. Determination by Engineering and Procurement Supplier Quality that the supplier QA program is capable of meeting the specified requirements

C. Determination by Engineering and QA that the subcontractor's QA program is capable of meeting the specified requirements.

The QA program evaluation is achieved by review of supplier/contractors quality program manuals and procedures submitted to Bechtel as required by the specific procurement document or proposal.

17.1B.7.2 Supplier Inspection

Project Engineering identifies commodities requiring source inspection and audit. Procurement or QA may recommend additional

Insert A

Bechtel may obtain material from APS that has been purchased, received and stored by APS in accordance with Section 17.2. In these cases, the material will be considered acceptable based on APS's procurement, control, receipt inspection and storage control without further receipt inspection, document review, etc., by Bechtel.

Insert B

Suppliers shall be evaluated to ensure their capability to meet technical and quality requirements of the procurement documents in accordance with Section 17.2.7.2. Procedures and instructions within Bechtel assure that only vendors which are determined to be qualified in accordance with this process are selected for procurement of safety-related material, equipment and services.

items when justified. Manufactured or fabricated Q-List items such as vessels, heat exchangers, pumps, piping subassemblies, valves and electrical panels are included in source inspection and audit programs. Items that are typically excluded from the source inspection program include materials and standard manufactured products (catalog items) where required quality can be adequately determined by receipt inspection or post-installation checkout or test. Also excluded are materials where important physical and chemical properties are independently verified on samples taken at the supplier's facilities or at the jobsite.

Replace with Insert (C)

~~For Q-List items, Bechtel Procurement Supplier Quality Representatives (SQR) perform their inspection in accordance with approved inspection plans and instructions. These plans are prepared by Procurement Supplier Quality based on standards in the Procurement Supplier Quality Manual and may be extended by Project Engineering. They provide for the identification of witness and hold-points and identify the examinations and tests which are selected to be witnessed by the Bechtel SQR. Source inspection may be performed by resident or area SQR's assigned to several suppliers.~~

Reports documenting inspections performed, tests witnessed and discrepancies observed are prepared by the ~~SQR~~ Source inspection/surveillance personnel and distributed to appropriate project personnel. ~~Bechtel SQR~~ Source inspection/surveillance personnel are responsible for assuring that inspected material, equipment, and specified documentation conform to the requirements of the procurement documents prior to releasing inspected items for shipment. The ~~SQR~~ Source inspection/surveillance personnel has the authority to refuse release of nonconforming material.

17.1B.7.3 Receiving Inspection

All items are examined on receipt at the jobsite for identification, quantity, and damage. These examinations are performed

Insert C

APS is responsible to coordinate source inspection and surveillance activities. Where source inspection is a requirement of a safety-related purchase order, it shall be conducted in accordance with an APS approved inspection plan. This plan shall provide for identification of witness and hold points and identify the examination and tests which are selected to be witnessed. The source inspection or surveillance will be performed by qualified personnel.

17.1B.7.4 Supplier Audits

The supplier control program provides for periodic audits of suppliers' QA programs. Audits of suppliers performing continuing work for Bechtel projects are conducted on an annual basis; audits of suppliers performing limited duration assignments are conducted at least once during the life of the contract. Suppliers of Q-List items who are required to provide a QA program are subjected to procurement audits. P

Audits of suppliers, other than suppliers of ASME Section III materials, may be waived for one year if all the following conditions are met:

A. The supplier has been previously audited by Bechtel and no significant problems were found.

Replace with Insert D

B. The supplier has a history of satisfactory quality performance on Bechtel work. PSQD audits, Quality Surveillance Reports and Non-conformance Reports will be used as a minimum for establishing a satisfactory history. 12

C. All recommendations for audit waiver will be presented in writing to Project Engineering and Quality Assurance. Concurrence with the audit waiver recommendation will be documented.

Audits cannot be waived two years in succession.

Construction subcontractor work is performed under the administrative control of the field contracts administrator with assistance from field engineering. Surveillance inspection of subcontractors activity is performed by Bechtel field QC. Subcontractor's quality verification documentation is also reviewed and checked by field QC. Routine construction site audits of subcontractors QA/QC program are performed by field QA personnel with the assistance of field QC. Subcontractor's of design and consulting work are reviewed/approved by project engineering and audited by QA. P 12

Insert D

Audits of suppliers shall be coordinated by APS and conducted in accordance with requirements established in Section 17.2.

cleaning and flushing, are performed by qualified personnel in accordance with qualified special process procedures. The requirements for welding and nondestructive examination comply with applicable portions of the ASME Boiler and Pressure Vessel Code, AWS Standards, and SNT-TC-1A and supplements, as applicable. Cleaning and flushing procedures and personnel qualifications conform to the requirements of ANSI N45.2.1. 12 P 12

Other special processes or work operations identified by the nuclear steam system supplier or project engineering are properly qualified and performed by trained personnel in accordance with specified technical requirements.

Current qualification records of procedures, equipment, and personnel are maintained at the jobsite. Controls are provided to ensure that personnel qualification records are regularly reviewed and appropriate requirements for requalification are implemented. Implementation of these controls is verified by field QC personnel and is audited by QA with the assistance of the M&QS Department. P

17.1B.10 INSPECTION 12

As described in section 17.1B.7, supplier and subcontractor programs are subject to source inspection ~~by Bechtel Procurement Supplier Quality Representatives and Field QC Engineers,~~ as applicable. The inspection of Bechtel construction work includes inprocess surveillance, examination, and inspection by Field Engineering personnel who are independent of direct construction craft supervision, and formal quality verification inspection and testing by Field QC personnel who are independent of Field Engineering and craft supervision. Field engineering receives day-to-day supervision from the Project Construction Manager. Field QC Engineers are assigned by and receive technical direction from the Chief Construction QC Engineer in the division or area office. The overall inspection program is monitored and audited by resident construction site QA personnel. P 12 12

Engineer, monitored by the Chief Construction QC Engineer, and audited by the Project QA Manager. P 12

The Procurement Supplier Quality Manual provides for a formal system of certifying all grades of Bechtel source inspectors, including specified renewal periods. This system is administered by the Procurement Supplier Quality Department and audited by the PQAE. P 12

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17.1B.11 TEST CONTROL

12

Tests required to verify acceptance of completed installations, equipment or systems are defined in engineering drawings, specifications, or test procedures. Construction tests are an extension of construction inspection procedures. Construction testing is conducted to demonstrate that the equipment installation is complete and that the electrical systems are properly wired. Test plans or procedures, test reports, and records are used to demonstrate that completed tests have met test objectives. Written test procedures include: P

A. Instructions for conducting the test and test equipment to be used 12

B. Test prerequisites which include, but are not limited to, the following:

1. Calibrated instrumentation

2. Adequacy of the test equipment

3. Requirement for trained, qualified, and/or licensed/certified personnel P

4. Preparation, condition, and completeness of item to be tested

5. Suitable environmental conditions

6. Where applicable, mandatory inspection hold points, for witness by APS, contractor, or authorized inspector

7. Provisions for data collection and storage

8. Acceptance and rejection criteria

9. Methods of documenting or recording test results

System cleaning, flushing, instrument and control settings, and performance demonstration are part of the startup prerequisite test program. Prerequisite/preoperational testing is under the control of APS. Bechtel Startup Engineers provide assistance to APS as described in section 14.2.1.

17.1B.12 CONTROL OF MEASURING AND TEST EQUIPMENT

The Bechtel field QC program provides for calibration, maintenance, and control of measuring and test equipment used in the construction, testing, and QC inspection activity. Calibration is conducted using certified equipment having known valid relationship to nationally recognized standards. Procedures provide for unique identification of each measuring or test equipment item requiring calibration or checking. Calibration schedules are established based upon the amount of usage, accuracy, and type of equipment. Procedures provide for identification of calibration status by tags, labels, or markings applied to the item.

The identification of measuring and test equipment used in performing tests is entered in the test records when the validity of the test result is dependent on the accuracy of the test equipment. Also, whenever inspection, test, or measuring equipment is found to be uncalibrated or out of calibration limits, all items that have been inspected, tested, or measured since the last recorded calibration of the equipment, will be evaluated to determine acceptability.

The evaluation of performance and effectiveness of the control of measuring and test equipment is verified by supplier surveys and audits performed by Bechtel Procurement supplier quality or APS personnel. ~~and~~ In addition, field QA surveillance and audit of subcontractors and

Bechtel Construction are performed Field QC is responsible for verifying the current calibration status and proper functioning of equipment prior to use. 12

P

17.1B.13 HANDLING, STORAGE, AND SHIPPING

12

The requirements for packaging, marking, and shipping are included in Procurement documents for Q-List items, which meet the intent of ANSI N45.2.2. P 12

Procedures for equipment and system cleaning, flushing, and cleanness control are contained in Work Plan Procedures/Quality Control Instructions (WPP/QCI's) which conform to the appropriate requirements of ANSI N45.2.1. P 12

Special handling, storage, shipping, and preservation requirements are identified in technical specifications that provide, or require supplier's or subcontractor's to provide, the required procedures and instructions. The packaging, handling, and shipping practices of the suppliers are subject to review ~~by Bechtel Procurement Supplier Quality Representatives~~ prior to shipment, to verify compliance with requirements defined in Procurement documents. P 12 P

Materials and equipment received at the construction site are inspected, stored, and maintained in accordance with standard field procedures supplemented by special procedures and requirements issued by project engineering or furnished by suppliers. Materials and equipment are physically inspected upon arrival at the jobsite, and moved into prescribed storage areas or to the installation site if adequate protection is available. Direct movement to the installation site is permitted, to eliminate multiple handling provided direct installation is compatible with the construction schedule. Special environmental conditions such as inert gas, specific moisture content levels, and temperature levels prescribed in procedures or specifications are controlled at the site. 12 P

Nonconformances discovered are clearly identified and controlled as described in section 17.1B.15. Nonconforming items are required to be identified, tagged, and/or segregated. No further work can proceed on any nonconforming item until an approved disposition is implemented. Suppliers and subcontractors are required to have a Bechtel approved program for handling nonconformances. Activities at the site will comply with standard QC procedures which assure adequate control of nonconformances. Both supplier and subcontractor activities regarding nonconformances will be audited by Bechtel QA.

17.1B.15 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

Suppliers and subcontractors are required to advise Bechtel of all nonconformances from procurement documents or Bechtel approved designs for which the recommended disposition is "repair" or "use as is." Bechtel reserves the right to accept or reject the disposition. Bechtel requires suppliers to submit proposed repair procedures for nonconformances for approval by Project Engineering and review by the Project QA Engineer prior to their use. Reports of nonconforming conditions are prepared by the supplier, Bechtel Procurement Supplier Quality Representatives, or Project Engineering to ensure complete and adequate documentation. Copies of completed nonconformance reports are forwarded to the jobsite prior to, or included with the documentation submitted with the equipment. Inspection or ~~Procurement Supplier Quality Representatives~~ surveillance personnel verifies inclusion of approved nonconformance report at time of equipment release when source inspection/surveillance is required.

Nonconformances discovered during receiving inspection or construction activities (jobsite) are controlled and documented in accordance with standard project QC procedures. The procedures provide for identification, documentation and control of the nonconforming item. The authority for approval of the proposed resolution, and documentation of reinspection results is also provided.

Bechtel's Construction WPP/QCI Manual will require that the following listed information be noted in inspection and/or test records: 12

- A description of the type of operation
- Evidence of completion of each construction inspection, or test operation
- The results of the inspection or test
- Information related to nonconformance(s)
- Inspector or data recorder
- Date
- Acceptance or nonconformance report number P

Quality Assurance will audit for compliance during their review of these documents.

For suppliers, ~~Bechtel's Procurement Supplier Quality Department personnel~~ source inspection/surveillance personnel, during source inspection, will assure that suppliers' inspection and test records contain the listed information. Examples of these reports and records are submitted with the supplier's QA program. Quality Assurance Engineers will audit suppliers records to assure they contain the listed information.

17.1B.18 AUDITS 12

A comprehensive program of audits is conducted by Bechtel covering the various activities of the QA program.

The Bechtel audit program includes scheduled or unscheduled audits conducted by project QA personnel at the construction site or home office as well as periodic team audits performed by personnel independent of project activities. Audit activities include the following: P

A. Audits of Project Engineering activities by office QA personnel assigned to the project. These audits are

planned, scheduled, and documented. Results are reported to the Project Engineer, Project Manager, Project QA Manager and the QA Manager of Domestic Projects. Audit results are also submitted to APS.

B. Audits of field construction and subcontractor activities by resident field QA personnel assigned to the project. These audits are planned, scheduled, and documented. Results are reported to the site Construction Manager, Project Manager, QA Manager of Domestic Projects and to APS.

C. Audits of Bechtel supplier activities by Procurement Supplier Quality Department, with assistance if required from appropriate QA, Engineering, and M&QS. Audits are conducted annually or as described in section 17.1B.7.4. Supplier audit results are reported to the Project Engineer, Project Procurement Supplier Quality, project QA, and APS.

Results of these audits are retained in Project Procurement Supplier Quality and QA files.

Replace with Insert E

D. Audits of Project Engineering, design, Procurement, Construction, and QC activities at the jobsite by QA audit teams under the direction of the Division QA Manager, assisted by M&QS specialists and others, as required. These audits are conducted at least annually and results are reported to the management of the function audited, cognizant project management, division management, and the BPC Manager of QA.

E. Audits of Division Engineering Technical Staff and services activities are performed on an annual basis under the direction of the Division QA Manager. These audits cover those groups doing design and/or review outside of direct control of the Project Engineer. Results of these audits are reported to the manager or supervisor

Insert E

Audits of suppliers are coordinated by APS and conducted in accordance with requirements established in Section 17.2.

Audit data are derived from project design office QA audits, Procurement Supplier Quality audits of suppliers, QA audits of Construction and subcontractor activity at the site. 12

The PQAM is responsible for analysis of Bechtel audit data to determine the effectiveness of the quality assurance program. The results will be reported to QA management and Project Manager. The data is also reviewed to determine if a quality trend has been established which requires corrective action. P 12

Audit results are sent to and reviewed by responsible management. Corrective action is taken by the management of the group audited. Project audit programs include provisions that corrective action is defined and scheduled completion dates determined. Re-audits are conducted to verify that corrective action has been taken and is effective. P 12