

**ORGANIZATION:** BECHTEL POWER CORPORATION, LOS ANGELES POWER DIVISION  
NORWALK, CALIFORNIA

**REPORT NO.:** 99900521/81-02 **INSPECTION DATE(S):** 9/28-10/1/81 **INSPECTION ON-SITE HOURS:** 58

**CORRESPONDENCE ADDRESS:** Bechtel Power Corporation  
Los Angeles Power Division  
ATTN: Mr. J. V. Morowski  
Vice President and General Manager  
P.O. Box 60680, Terminal Annex  
Los Angeles, CA 90060

**ORGANIZATION CONTACT:** Mr. R. L. Patterson, QA Manager  
**TELEPHONE:** (213) 864-6011, Ext. 2061

**PRINCIPAL PRODUCT:** Architect Engineering Services

**NUCLEAR INDUSTRY ACTIVITY:** The Los Angeles Power Division of the Bechtel Power Corporation is the architect engineer for seven domestic reactor units. Fifty percent of the total personnel (approximately 7,700) are assigned to activities in connection with these units.

**ASSIGNED INSPECTOR:** R. H. Brickley  
R. H. Brickley, Reactor Systems Section (RSS)

10/28/81  
Date

**OTHER INSPECTOR(S):** J. R. Costello, RSS

**APPROVED BY:**

C. J. Hale  
C. J. Hale, Chief, RSS

10-28-81  
Date

**INSPECTION BASES AND SCOPE:**

- A. **BASES:** 10 CFR Part 50, Appendix B, and Topical Report No. BQ-TOP-1.
- B. **SCOPE:** Design process management, procurement source selection, procurement document control, evaluation of supplier performance, and status of previous inspection findings.

**REPLICATED ORIGINAL**

Certified By Phyllis Joubert

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PDR GA999 EECBECH  
99900521 PDR

REPORT NO.: 99900521/81-02

INSPECTION RESULTS:

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A. VIOLATIONS:

None

B. NONCONFORMANCES:

Contrary to Criterion III of 10 CFR Part 50, Appendix B, and Appendix 17A of the Alvin W. Vogtle Nuclear Power Plant (VNP) PSAR, Bechtel has revised Section 17 of the VNP Project Reference Manual to allow Georgia Power Company field operations to make changes to approved engineering drawings, specifications, or other design documents without prior Bechtel Project Engineering approval.

C. UNRESOLVED ITEMS:

It is not apparent that the requirements for independent verification of engineering specifications is being properly implemented. IP-4.6 (Project Material Requisitions and Specifications) requires an independent verification by an engineer who has a level of design capability sufficient to have originated the specification. Present documentation of design specification reviews does not clearly identify the independent reviewer.

D. STATUS OF PREVIOUS INSPECTION FINDINGS:

1. (Closed) Nonconformances (81-01): Computer program NE 155 (JET 2) did not show evidence of review and approval of the User's Manual, Theoretical Manual, and Verification Report.

The User's Manual, Theoretical Manual, and Verification Report have been reviewed and approved and each computer program sponsor has been required to recheck and confirm that the required documentation is completed and forwarded to the Data Processing Library.

2. (Closed) Nonconformance (81-01): All project personnel were not receiving the LAPD QA Indoctrination Program training as required by procedures.

The monthly "Exception Reports" identifying personnel that require training are being issued, affected personnel and their supervisors notified of the mandatory requirement, and training sessions are being conducted.

E. OTHER FINDINGS OR COMMENTS:

1. Design Process Management - Section 17 of the VNP-PSAR and applicable procedures were examined to determine that a system for design process management had been prescribed which is consistent with the commitments of the Bechtel quality assurance program. The following documents were examined to determine that the design process procedures were being properly and effectively implemented: one design criteria manual, detailed design criteria, one system description, one specification, two SAR changes, 12 document review notices, five calculations, five drawings and the minutes of three review meetings. Relative to the documents examined, one nonconformance and one unresolved item were identified (See B. and C. above).

2. Procurement Source Selection - Applicable procedures/sections from the Procurement Supplier Quality Manual, Engineering Department Procedures Manual, and project procedures for two projects were examined to ascertain that procedures had been prepared and approved that prescribe a system for procurement source selection, bid evaluation and contract award consistent with QA Program commitments. Records maintained on the source selection, bid evaluation, and contract award involving five safety related contracts for two projects were examined. It was determined that these activities had been conducted in conformance with procedural requirements.
3. Procurement Document Control - Applicable procedures/sections from the Procurement Supplier Quality Manual Engineering Department Procedures Manual, and project procedures for two projects were examined to ascertain that procedures have been prepared and approved that prescribe a system for procurement document control which are consistent with QA Program commitments. Records pertaining to the control of procurement documents involving five safety-related contracts for two projects were examined. It was determined that these activities had been conducted in conformance with procedural requirements.
4. Evaluation of Supplier Performance - Applicable procedures/sections from the Procurement Supplier Quality Manual, Engineering Department Procedures Manual, and project procedures for two projects were examined to ascertain that procedures had been prepared and approved that prescribe a system for the evaluation of a suppliers performance that is consistent with QA Program commitments. Supplier Quality Inspection records maintained on five suppliers of safety-related equipment for two projects were examined. It was determined that these activities had been conducted in conformance with procedural requirements.

PERSONS CONTACTED

Company BPC/LAPD

Dates 9/28-10/1/81

Docket/Report No. 99900521/81-02

Inspector K. H. BRICKLEY

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## DOCUMENTS EXAMINED

[illegible]

**Document Types:**

1. Drawing
2. Specification
3. Procedure
4. QA Manual

5. **Purchase Order**
6. **Internal Memo**
7. **Letter**
8. **Other (Specify)**

**Columns:**

1. Sequential Item Number
2. Type of Document
3. Date of Document
4. Revision (If applicable)

Scope/Module PROCUREMENT- DOCUMENT CONTROL,  
SOURCE SELECTION, & EVALUATION OF SUPPLIER  
PERFORMANCE: PVNGSDOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	8	SPECIFICATION CONTROL LOG - ANPP-002	8/14/81 12/17/81	800
2	4	PROJECT QUALITY PROGRAM MANUAL, SECTIONS IV, VII	9/10/81 Table Contents	9/10/81 Table Contents
3	4	BECHTEL PROCUREMENT SUPPLIER QUALITY MANUAL, SECTIONS 2.0 & 3.0	11/15/79	0
4	3	EDP-6.10 (Supplier QA Program Selection and Evaluation)	5/20/75	1
5	3	IP-4.16 (Project Material Requisitions and Specifications)	10/31/80	18
6	3	IP-4.19 (Bid Evaluation/Award)	10/14/77	6
7	8	Procurement Files for MR-13-JM-105 (Main Steam and Feedwater Actuation System) consisting of Initial issue and revisions to Spec. 13-JM-105, Bid Evaluation, Supplier Quality Program Evaluation Report, Letters to Licensee, Correspondence w/ Supplier, Supplier Deviation Disposition Requests, P.O. Revisions etc.	Various	NA
8	8	Evaluated Supplier List	9/4/81	NA
9	8	Surveillance Inspection Files MR-13-JM-105 consisting of: Special Instructions for Surveillance, Checklist-Summary of Initial Inspection Visit, Internal Memos, Letters to Licensee, Applicable PO and Revisions, Quality Surveillance Reports, Material/Equipment Release for Shipment, Supplier Quality Correction Request	Various	NA

## Document Types:

- |                  |                                 |
|------------------|---------------------------------|
| 1. Drawing       | 5. Purchas Order                |
| 2. Specification | 6. Internal Memo                |
| 3. Procedure     | 7. Letter                       |
| 4. QA Manual     | 8. Other (Specify-if necessary) |

## Columns:

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| 4. Revision (If applicable) |



Scope/Module Procurement - Document Control,  
Source Selection, & Evaluation of  
Supplier Performance - Vogtle

## DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	3	Part D, Section 2 (Purchasing) of VNF Project Reference Manual	1/23/81	3
2	4	Bachtel Procurement Supplier Quality Manual, Section 2 & 3	11/15/79	0
3	3	EDP 6.10 (Supplier QA Program Selection and Evaluation)	5/20/75	1
4	8	Evaluated Supplier List	9/4/81	NA
5	8	Specification / MR Control Log	9/11/81	NA
6	8	Procurement Files for Engineering Requisition # 1X4AJ20 (I & C, Auto Dampers, Backdraft Dampers and Actuators) consisting of: Engineering Requisition, Internal Memo, Letters to & from Licensee, Georgia Power Co. Purchase Order, Letters to & from Supplier.	Various	NA
7	8	Surveillance Inspection File for 1X4AJ20 consisting of: Georgia Power Co. P.O., Quality Surveillance Plan, Supplier Quality Correction Request, Quality Surveillance Reports, Letters to & from Supplier, Approved Bidders List, Quality Program Evaluation Checklist & Report, Supplier Quality Program Evaluation Report, Specification 1X4AJ20 (Rev 0, 6/10/80) & Addendum #1 (6/10/80)	Various	NA

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PERSONS CONTACTED

Company Bechtel - LAPD

Dates 9/28 - 10/4/81

Docket/Report No. 99900521/81-02

Inspector J. R. Costello

Page 1 of       

NAME(Please Print)

TITLE(Please Print)

ORGANIZATION(Please Print)

A. G. COUTOUMANOS

QA MANAGER

## QUALITY ASSURANCE

R. L. Patterson

Mgr. Division Q. A.

14

C. E. ZIMMERMAN

QA MGR - AUDITS

Quality Assurance (STAFF)

M J. GROTHE

SUPV OF QUAL ENGR

BECHTEL-LAPD-ENGR

KJ STWERTNIK

PVNGS Project Quality Eng.

Bech tel

V. NAJARIAN

Asst. Project Eng.

Bechtel

R. W. WELCHER

PUNGS PROJECT QAE

BECHTEL-LAPD QA

R. R. Stiens

PYNGS PROJ. EN9

Book tel

D. G. Keith

Asst. Proj. Eng.

Bechte /

Inspector J. R. CastelloDocket No. 77706341Report No. 81-02Page 1 of 4Scope/Module Design Process Management/37991BDOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	8	Design Criteria Manual, Palo Verde Nuclear Generating Station Units 1, 2 & 3 Volumes I & II	7/6/81 JRC JRC 2/3/75 <del>8/20/74</del>	17
2	3	EDP-4.1, Design Criteria	3/1/78	2
3	3	IP-4.1, Design Criteria	10/29/79	10
4	3	Palo Verde Nuclear Generating Station Quality Program Procedure No. 3.5 Design Verification	9/16/75	3
5	8	Document Review Notice, Log No 548, Detailed Design Criteria - Auxiliary Feedwater System	4/1/81	0
6	2	Specification No. 13-MM-021 Auxiliary Feedwater Pumps For The Arizona Public Service Company Palo Verde Nuclear Generating Station Units 1, 2 And 3	5/23/75	8
7	8	Document Review Notice, Log No. 918, Auxiliary Feedwater Pumps Specification 10407-13-MM-021	11/2/79	0
8	8	System Description, Auxiliary Feedwater System, Palo Verde	4/4/80	1
9	8	Detailed Design Criteria, Auxiliary Feedwater System, Palo Verde	3/1/78	1
10	8	Section 17 of Palo Verde Nuclear Generating Station Units 1, 2 & 3 PSAR		17

## Document Types:

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| 4. Revision (If applicable) |

Inspector J.R. CostelloScope/Module Design Process Management/37991BDOCUMENTS EXAMINED
 Doc# No. 17700241  
 Report No. 81-03  
 Page 2 of 4

1	2	TITLE/SUBJECT	3	4
11	3	EDP-4.33, On-Project Design Review	8/25/75	0
12	3	EDP-4.34, Off-Project Design Review	3/30/77	4
13	3	EDP-4.37, Design Calculations	10/6/80	7
14	3	EDP-4.46, Project Drawings	10/6/80	9
15	3	EDP-4.47, Drawing Change Notice	2/20/79	2
16	3	EDP-4.49, Project Specifications	5/27/76	5
17	3	EDP-4.3, Application of ANSI N45.2.11	6/6/77	0
18	3	EDP-4.28, Project Q-List	6/27/75	3
19	8	SAR Change Notice No 860 PVNGS-1, 2 & 3 PSAR	2/7/80	-
20	8	DRN <sup>Log</sup> No. 2838, Specification 13-MM-050, Batteries	7/23/80	3
21	8	DRN Log No. 2090, Specification 13-MM-200, Main Central Panels	7/5/78	3
22	8	DRN Log No. 2516, Specification 13-MM-071, Q Class Heat Exchangers	8/14/79	6
23	8	DRN Log No. 449, Specification 13-MM-071, Q Class Heat Exchangers	6/3/75	0
24	8	DRN Log No. 379, Specification 13-MM-993, Hydrogen Recombiners	3/17/75	0
25	8	DRN Log No. 2998, Specification 13-MM-018, Diesel Generators and Auxiliaries	2/27/81	8

## Document Types:

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1	2	TITLE/SUBJECT	3	4
26	8	DRN Log No. 316, Specification 13-PM-209, Nuclear Pipe Supports	3/13/75	9
27	8	DRN Log No. 2640, Specification 13-PM-112, Design Spec For Nuclear Sampling System	1/7/80	2
28	8	DRN Log No. 392, Specification 13-JM-691, Nuclear Safety Relief Valves	6/10/75	0
29	8	DRN Log No. 3018, Specification 13-MM-021, Auxiliary Feed Pumps	4/2/81	9
30	8	Calculation No. 13-MC-AF- <sup>201 JRC</sup> <del>200</del> , Auxiliary Feedwater Pump Head	10/19/79	1
31	8	Calculation No. 13-MC-AF-600, Auxiliary Feedwater Regulating Valves	10/19/79	2
32	8	Calculation No. 13-MC-ST-205, Condensate Storage Tank	4/17/79	0
33	8	Calculation No. 13-MC-AF-800, Diesel Generator Load Sequence -	9/20/79	0
<del>33 JRC</del>	<del>JRC</del>	Auxiliary Feedwater Pumps		
34	3	Multidiscipline Systems Analysis Review, IP-4.3	6/15/79	5
35	3	IP-4.26, Designing Power Plants By Use Of Models	9/16/77	2
36	8	*ALARA/ISI Review Meeting on 5/26/78 Aux. Feedwater	7/19/78	-
37	8	ALARA/ISI Review Meeting on 12/16/77 Aux. Feedwater	1/12/78	-
38	8	ALARA/ISI Review Meeting on 11/1/77 Aux. Feedwater	12/3/77	-

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\* ALARA - As Low As Reasonably Achievable  
ISI - Inservice Inspection

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1	2	TITLE/SUBJECT	3	4
39	1	13-M-AFP-001, P&I Diagram Auxiliary Feedwater System	6/2/81	8
40	1	13-M-AFF-001, Basic Flow Diagram Auxiliary Feedwater System	1/20/77	0
41	1	13-J-AFL-001, Central Logic Diagram Auxiliary Feedwater Pump B And AFAS Maintained Logic	8/20/79	2
42	1	13-J-AFL-002, Central Logic Diagram Auxiliary Feedwater Regulating Valves	7/19/79	2
43	1	13-E-AFL-004, Elementary Diagram Auxiliary Feedwater Systems Aux Feedwater Regulating Valve	2/3/81	4
44	8	SAR Change Notice 860, PVNGS PSAR	4/1/90	-
45	8	Section 17 of Vogtle Nuclear Power Plant PSAR	3/2/77	-
46	8	VNP Project Reference Manual, Part C Engineering, Section 17 Field Change Requests and Field Change Notices	9/24/81	3

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### ATTENDANCE LIST

COMPANY: BPC/LAPD

DOCKET NO. 99900521  
81-02

Date: 10/1/81 ☐ Pre-Inspection Conference ☒ Post Inspection Conference

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