

ORGANIZATION: BECHTEL POWER CORPRATION
 LOS ANGELES POWER DIVISION
 NORWALK, CALIFORNIA

REPORT NO.: 99900521/82-04	INSPECTION DATE(S) 8/30-9/3/82	INSPECTION ON-SITE HOURS: 31
CORRESPONDENCE ADDRESS: Bechtel Power Corporation Los Angeles Power Division ATTN: Mr. L. G. Hinkelman, V. President and Gen. Mgr. P. O. Box 60680, Terminal Annex Los Angeles, CA 90060 ORGANIZATIONAL CONTACT: Mr. R. L. Patterson, QA Manager TELEPHONE NUMBER: (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 nine domestic reactor units. Fifty percent of the total personnel (approximately 6,700) are assigned to activities in connection with these units and two modification/repair/service type contracts.		
ASSIGNED INSPECTOR: <u>J. R. Costello</u> J. R. Costello, Reactor Systems Section (RSS)		<u>10/19/82</u> Date
OTHER INSPECTOR(S): W. B. Swan, Region II		
APPROVED BY: <u>C. J. Hale</u> C. J. Hale, Chief, RSS		<u>10/22/82</u> Date
INSPECTION BASES AND SCOPE: A. <u>BASES</u> 10 CFR Part 50, Appendix B. B. <u>SCOPE</u> : This inspection was conducted to review the present practices being used to process field change notices on the Alvin W. Vogtle Nuclear Project, to assess the effectiveness of Bechtel's QA program in the area of design document control, and the status of previous inspection findings.		
PLANT SITE APPLICABILITY: The contents of this report relate to the following docket: 50-424, 50-425, 50-528, 50-529, and 50-530.		
DESIGNATED ORIGINAL Certified By <u>Rheanne Clark</u>		

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A. <u>VIOLATIONS:</u> None		
B. <u>NONCONFORMANCES:</u> None		
C. <u>UNRESOLVED ITEMS:</u> None		
D. <u>STATUS OF PREVIOUS INSPECTION FINDINGS:</u>		
1. (Closed) Nonconformance (82-01): No managers or their designees attended the preaudit and postaudit conferences for a management audit of the SONGS 2 and 3 engineering office. Also, no department/project/construction manager or their designees attended the preaudit conference for the management audit of the Vogtle design office. Project managers have been requested to assure that a responsible project individual is assigned as a designee when they are not available. Also, QA Supervisors and Audit Team Leaders have been reinstructed to assure that a responsible project individual is in attendance during preaudit and postaudit conferences.		
2. (Closed) Nonconformance (82-01): The response to CAR-002 from the management audit of the Vogtle design office was 11 days beyond the 30-day requirement and no schedule date for response had been established. Further, the management audit of division engineering had scheduled corrective action for CAR-001 by March 20, 1981, and the item was still open a year later. A response date extension for CAR-002 was granted verbally by the Management Audit Team Leader, but was not documented on the CAR tracking log. Management Audit Team Leaders have been instructed to document any revised due dates on the CAR tracking log. CAR-001 was resolved by issuance of Engineering Department Procedure 4.57, Technical Service Contracts, dated May 11, 1982. This procedure defines quality requirements for Technical Service Contracts.		

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<p>3. (Closed) Nonconformance (82-01): The Vogtle Audit Activity Report for January and February 1982 did not identify the personnel contacted during the preaudit, audit, and postaudit activities.</p> <p>The Vogtle Audit Activity Reports for January and February 1982 were corrected to reflect personnel contacted during the preaudit and postaudit activities. A review of other audit reports was conducted and no further nonconformances were identified.</p> <p>QA Supervisors and Audit Team Leaders have been reinstructed to assure that audit activity reports reflect personnel contacted during preaudit, audit, and postaudit activities.</p> <p>4. (Closed) Nonconformance (82-02): Five out of six Deficiency Evaluation Reports (DER) examined did not comply with the procedural requirement of EDP 4.66 that the initiator sign and date the DER's.</p> <p>EDP 4.66 is an engineering department procedure which provides instructions to engineering personnel on how to fill out a DER which is basically a QA department form. The DER form does not require a date in the block reserved for the report initiator, but does require a signature. The date is provided elsewhere on the form.</p> <p>Project QA Engineers have been instructed to verify that all DER's have the initiator's signature prior to validation. In addition, the Division QA staff will review DER's to assure the initiator's signature is present.</p> <p>Bechtel did not attempt to retrofit the initiator's signature on DER's previously issued as all DER's had been reviewed, signed, and dated by the Project QA Engineer. They believe the Project QA Engineer's signature attests to the DER's authenticity.</p> <p>5. (Closed) Unresolved Item (82-02): Procedure IP-2.12 (Palo Verde Project) has a requirement which states, "If the response to an audit report or corrective action request cannot be made by the requested due date, the Project Quality Engineer (PQE) or responsible Group Supervisor (GS) shall prepare a handwritten memo requesting an extension of time. The memo shall state the reason why the audit report cannot be answered by the requested due date</p>		

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and shall be countersigned by the Project Engineer (PE)." The inspector reviewed six corrective action reports (CAR), two of which requested an extension of time, but were not signed by the PE. It could not be determined during the inspection whether these should have been signed by the PE, or whether they were special cases not requiring the PE signature.

The two CAR's PVH 81/285 and PVH 82/073 were special cases which did not require a PE signature and did not deviate from IP-2.12 requirements. One pertained to an extension of time for corrective action implementation and the other was assigned to procurement for response which is not covered by IP-2.12

E. OTHER FINDINGS OR COMMENTS:

1. Vogtle Field Change Notice Controls - This was a joint inspection with a representative from Region II. Section 17, Part C, Revision 4 (August 13, 1982) of VNP Project Reference Manual, "Vogtle Field Change Notice Log," and rejected Field Change Notices were reviewed for requirements and implementation of requirements.

From October 1981, the start of the field change notice (FCN) program, until September 1982, 140 FCN's have been processed versus 4840 field change requests (FCR). This represents 2.89% of the FCR's. Of the 140 FCN's processed, 13 were rejected for a percentage rejection of 9.29%. Reviewing the 13 rejections, it was found that 10 were converted to nonconformance reports, 2 were converted to FCR's, and 1 was dropped as not necessary.

At the present time there is no loop-closing method for rejected FCN's. The information is available in the system, but is not being returned to the engineers who made the original decision to reject the FCN. At the present time, Bechtel project personnel (Vogtle project) are working with Georgia Power Company on procedural changes to notify Bechtel engineering regarding what happens to rejected FCN's.

The FCN control program requires a 5-day turnaround time with 2 days allotted to Bechtel to process an FCN. At the present time, these time constraints are being met.

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<p>The inspectors found the present FCN control program operating satisfactorily. As construction progresses and the installation of pipe hangers increases, this picture could change. This program will be further reviewed during future inspections.</p> <p>2. Design Document Control - Chapter 17 of the Alvin W. Vogtle PSAR, applicable quality assurance program procedures, and Vogtle project procedures were examined to determine quality assurance program commitments. The following documents were examined: five calculations, five specifications, nine drawings, three CEPUS control logs, and one document entitled "Westinghouse Plant and Equipment Parameters." Relative to the documents examined, the following concern was identified.</p> <p>ANSI N45.2.11 (Quality Assurance Requirements for the Design of Nuclear Power Plants) states in part, "Systematic methods shall be established for communicating needed design information across external design interfaces, including changes to the design information as work progresses." Also, Section 17A of the Vogtle PSAR states in part, "The design control program incorporates measures for identification and control . . . of such external interfaces as nuclear steam system supplier . . . these measures include . . . definition of interfaces and control of communication with organizations external to Bechtel Power Corporation (BPC)."</p> <p>On the Vogtle project, the responsibility for determining which Westinghouse documents are interface documents is the responsibility of the Nuclear Engineering Group Leader. The determination of which Bechtel documents are interface documents are determined by the Bechtel engineering disciplines. Requests for calculations can be made by Westinghouse or Bechtel and this interface will be handled by correspondence. Nowhere is there a complete list of all the AE/NSSS interface documents.</p> <p>The inspector is concerned that there is not adequate design change accountability for all interfacing documents and that there is not adequate assurance that all interfacing documents have been thoroughly reviewed and concurred in by both parties. This concern will be further reviewed in a future inspection.</p> <p>No nonconformances or unresolved items were identified in this area of inspection.</p>		

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3. Signature and Initial Identification Followup - In the 82-02 inspection, it was found that the practice of maintaining documentation of signatures and initials of design reviewers was not adequately controlled on the Vogtle and Palo Verde projects.

A review of the Vogtle project showed that they have issued Section 7, Part B, VNP Project Reference Manual, Revision 0, dated August 26, 1982, entitled "Document Signature and Initial Identification." This document requires the project administrator to update the signature list monthly. The inspector reviewed the latest signature list and found it satisfactory.

A review of the Palo Verde project showed that all design reviewers' signatures or initials have been obtained or have been explained satisfactorily. Also, Procedure IP-2.8 is being revised for definition of responsibilities for project signature list review signoff. The new revision is scheduled to be issued September 6, 1982.

1	2	TITLE/SUBJECT	3	4
1	3	YNP Project Reference Manual Section 17 Field Change Requests And Field Change Notices	8/13/82	4
2	8	FCNC-B-9 NSCW Cooling Tower (Legibility)	11/25/81	-
3	8	FCNC-B-10 Fuel Handling Building Center Sec (Legibility)	11/25/81	-
4	8	FCNC-B-12 Central Bldg - Soot Plan Above Pour 8-026 (Legibility)	12/2/81	-
5	8	FCNC-B-13 Aux Bldg. Area 3H1 (Legibility)	12/19/81	-
6	8	FCNC-B-15 Cooling Tower B Wall Reinforcement (Legibility)	12/22/81	-
7	8	FCNC-B-35 Aux Bldg. Plan Level 1 (Legibility)	6/1/82	-
8	8	FCNE-B-17 Lev B. Electrical Tray Support Schedule (Rejected)	2/10/81	-
9	8	FCNE-B-8 Lev. B. Electrical Trays Support Locations (Rejected)	2/8/82	-
10	8	FCNE-B-13 Lev D Conduit & Tray Support Plan (Rejected)	2/9/82	-
11	8	FCNC-B-47 NSCW Cooling Tower (Rejected)	6/14/82	-
12	8	FCNC-B-22 Central Bldg Level A Reinf. (Rejected)	3/9/82	-
13	7	M. Malcom to M.H. Gauge - Field Change Notice FCNC-B-22	3/29/82	-
14	7	M Malcom to M.H. Gauge - Field Change Notice FCNC-B-67	7/28/82	-
15	8	FCNC-B-67 Typical Reinf. Concrete Details Std. 1	7/26/82	-

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:

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

DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	3	VNP Project Reference Manual, Part C, Section 2, Nuclear Steam Supply System Design Interface Control	12/5/77	0
2	3	VNP Project Reference Manual, Part C, Section 3, Project Review - Document Review Notice / Design Review Notice Process	10/31/79	1
3	3	VNP Project Reference Manual, Part C, Section 4, Bachtel Drawings	Latest Change Notice 7/9/82	2
4	3	VNP Project Reference Manual, Part C, Section 5, Supplier Data	Latest Change Notice 5/9/82	4
5	0	Section 17A Alvin W. Vogtle PSAR, Bachtel Quality Program	3/2/77	-
6	0	CEBUS Calculation Control Log	8/13/82	-
7	0	CEBUS Drawing Control Log	8/13/82	-
8	0	Specs/Mr's Control Log, CEBUS	8/13/82	-
9	0	Calculation No. X4C 1901 - P02 - Waste Evaporator Feed Pump	11/2/77	0
10	0	Westinghouse Plant & Equipment Parameters	4/28/77	-
11	0	Calculation No X4C PESS02 - Pipe Wall Thickness Calculation for PMG-FG3	12/8/77	0

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1	2	TITLE/SUBJECT	3	4
12	8	Calculation No. X2CD2.1 - Auxiliary Feedwater Pumphouse Design Criteria And References	2/18/81	1
13	8	Calculation No. X2CJ3.2 - Internal Structure Spring Constants For NSSS & Coolant Loop Analysis	10/31/81	1
14	8	Calculation No. X2CJ4.2 - Containment Building Major Equipment Supports - General References	2/16/82	4
15	2	X3AR01-E3 Reactor Containment Electrical Penetrations, Electrical Construction Specification	4/29/79	0
16	2	X3AE08 Specification For Auxiliary Relay Panels And Class 1E Local Control Stations	7/16/82	4
17	2	X4AF03 Specification For Auxiliary Feedwater Pumps And Drivers	6/2/82	5
18	2	X4AR17 Specification For Main Steam Isolation Valves	6/29/81	2
19	2	X5AC05 Specification For Safety Valves And Relief Valves	6/29/81	4
20	8	Alvin W. Vogtle Nuclear Plant Preliminary Safety Analysis Report, Appendix 17A, Bechtel Quality Program	3/2/77	-

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Inspector J.R. Costello
 Scope/Module 37994B

DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
21	1	1X30-AA-A01A Main One Line Unit 1	5/6/82	9
22	1	2X30-AA-C03A One Line Diagram Reactor Coolant Pumps Underfrequency & Undervoltage Prot.	3/1/82	1
23	1	AX40B123-182 P&I Diagram Boron Recycle System, System No. 1210	8/13/81 8/11/82	5-5k1 5-5k2
24	1	1X40B112 P&I Diagram Reactor Coolant System, System No. 1201	8/11/82	7
25	1	1X40B118 P&I Diagram Chemical & Volume Control System No. 1208	2/29/81	5
26	1	1X40B159-1 P&I Diagram Main Steam System, System No. 1301	4/13/82	7
27	1	1X40B159-2 " " " " " " " "	2/22/82	6
28	1	1X40B317 Equipment Location Layout Containment, Control & Fuel Handling Bldg Unit 1 Plan Level 1 El. 220'-0"	1/29/82	4
29	1	1X40G104 Heat Balance Diagram 75% VWO-KW	7/16/79	1

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