

ORGANIZATION: COMBUSTION ENGINEERING, INC.  
POWER SYSTEMS GROUP  
WINDSOR, CONNECTICUT

REPORT NO.: 99900401/82-02	INSPECTION RESULTS:	PAGE 2 of 4
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 (81-03) - Certain operations, designated on the Integrated Manufacturing Quality Plan as being mandatory hold points, were performed by the supplier without either the Power Systems Group representative being present or a written waiver being issued.  The inspector verified the corrective action and preventive measures committed by Combustion Engineering in their letters dated January 22, 1982, and April 28, 1982; i.e., GQC representatives have been issued instructions to document the performance of Witness and Hold Points and all waivers, and an internal audit of the records on 15 additional items was conducted.		
2. (Closed) Nonconformance (81-03) - Record checklist requirements were not implemented in documentation packages; e.g., required material certification reviews, material test reports of filler material, radiographs, and qualification of welders and welding procedure specifications.  The inspector verified the corrective action and preventive measures committed by Combustion Engineering in their letters dated January 22, 1982, and April 28, 1982; i.e., Quality System Instruction No. 17.3 (Vendor Record Review) had been issued on November 25, 1982, the Record Check Lists had been corrected to show all records in the Owners Record Package, and the internal audit was completed.		

8209280070 820909  
PDR GA999 EMVC-E  
99900401 PDR

REPORT NO.:	99900401/82-02	INSPECTION RESULTS:	PAGE 3 of 4
-------------	----------------	---------------------	-------------

3. (Closed) Nonconformance (81-03) - No in-process audits were performed during fabrication of Component Cooling Water Heat Exchangers in regard to the welding processes used.

The inspector verified the corrective action and preventive measures committed by Combustion Engineering in their letters dated January 22, 1982, and April 28, 1982; i.e., Group Quality Control was reorganized to include an Audit Section and in-process audits of vendors are being performed.

4. (Open) Nonconformance (81-03) - Group Quality Control surveillance or record review has not verified completion or fulfillment of Code special process requirements by external suppliers.

This item remains open pending Combustion Engineering receipt of confirmation from their vendors that the vendor's suppliers have performed the qualifications required by the ASME Code. Combustion Engineering is also waiting on a response from Ametek regarding the Charpy-V impact property certification.

5. (Closed) Nonconformance (82-01) - Two specifications did not have the required documentary evidence of interface reviews on file.

The inspector verified the corrective action and preventive measures committed by Combustion Engineering in their letters dated May 6, 1982, and June 10, 1982; i.e., the Document Distribution/Approval (DD/A) forms have been placed in the files, memo PCE-82-031 was issued to Plant Components personnel, and Plant Components completed their review of an additional 19 specifications to confirm the availability of DD/A forms.

E. OTHER FINDINGS OR COMMENTS:

1. Coolant Sampling System Solenoid Valves - This item is a followup to a licensee (St. Lucie 2) report to the NRC that six pneumatically operated isolation valves had been installed with AC solenoid, rather than DC solenoid air control valves. If these valves fail to close during an accident, there is the potential that some radioactivity could be released.

The inspector reviewed the records maintained by Combustion Engineering (CE) on these valves consisting of one general and one project specification, one CE Certificate of Equipment, one CE Records Checklist, one CE Surveillance Report, one vendor drawing, one vendor project plan, one vendor procedure, one vendor traveler, and one vendor certificate of conformance.

REPORT NO. : 99900401/82-02	INSPECTION RESULTS:	PAGE 4 of 4
<p>The records review disclosed that paragraph 4.6.6 of the general specification 00000-PE-707 required that 125 volt DC solenoid valves be supplied when specified on the data sheet. The data sheet for these valves did specify DC solenoids. The vendor's drawing specified an ASCO air solenoid valve, however, it did not indicate AC or DC voltage. A review of a drawing from a different vendor of similar valves disclosed that they also did not specify the operating voltage requirements. The review of these records did not disclose the reason that the CE specification requirement was not implemented by the vendor. Additional followup will be made during a future inspection at the vendor facility. As a result of this inspection, CE instructed applicable cognizant engineers to verify that the correct voltage requirements were specified on vendor drawings, or they are to obtain verification (in writing) from the vendor.</p> <p>There were no nonconformances or unresolved items identified in this area of the inspection.</p> <p>2. Design Inspection - The chemical volume and control system (CVCS) charging pump was selected for this inspection. To initiate inspection in this area, five specifications, four internal memoranda, four letters (between CE and the AE), seven calculations, and eight DD/A's applicable to the CVCS charging pump were examined. This inspection effort will be completed during the next regularly scheduled inspection.</p>		



Inspector R.H. BRICKLEYDocket No. 99900401  
Report No. 82-02  
Page 1 of 1Scope/Module STATUS OF PREVIOUS  
INSPECTION FINDINGSDOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	8	Report of Audit No. GQS-82-00Z		NA
2	8	DOCUMENTATION PACKAGES FOR J-2349-A+HRO M	4/16/82	1
3	8	Report of Audit - Jos Oat Co.	5/3/82	0
4	8	Report of Audit - W/ITGD	6/2/82	0
5	3	Quality System Instruction 17.3 (Vendor Record Review)	11/27/81	0
6	6	QSI Checklists	7/14/82	NA
7	6	Witness & Hold Points	4/21/82	NA
8	8	DD/A For Spec 6473-PE-231, Rev. 5	4/28/82	NA
9	6	PCE-82-082 (NRC INSPECTION 82-01 Non-Conformance)	6/17/82	NA
10	8	DD/A For Spec 00000-PE-707, REV 2 & 3	—	NA
11	6	PCE-82-031	—	—

## 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)

Scope/Module CDR-AC Coils supplied  
INSTEAD of REQUIRED DC Coils  
For solenoid valves.DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	8	FAR # 13172-249	5/11/82	0
2	2	00000-PE-707 (GENERAL ENG. SPEC. FOR NUCLEAR SERVICE VALVES)	4/28/70	0
3	7	CE Ltr L-CE-7259 (50.55 (c) Report on Sample System Valves)	6/10/82	NA
4	1	Hoke #N930366Y1 (PNEUMATIC VALVE, Plug Type, Globe Pattern 5/16 DIA ORIFICE, ANSI 1500, Bellows Seal 3/8 Gyzolok IN AND OUT, AIR to OPEN OPERATOR)	10/26/78	C
5	8	Hoke Doc. #1088 (Project Plan, CE Inc. PO 9601801, FP&L Co, SAINT LUCIE Unit #2)	6/27/78	A
6	3	Hoke Proc. HPT-289 (ASSEMBLY, CLEANING & TEST PROCEDURE)	6/28/78	A
7	8	C.E. Certificate of Equipment	3/21/79	0
8	8	C.E. Records Checklist	3/21/79	0
9	8	C.E. SURVEILLANCE Report	12/6/78	0
10	8	Hoke - Nuclear Traveler # N1088B	12/11/78	0
11	8	Hoke - Certificate of Conformance for Part # N90366Y1	—	0
12	2	13172-PE-713 (NUCLEAR SERVICE INSTRUMENT VALVES)	4/7/77	Z
13	6	PCE-82-096 (Action Required by CAG. ENGINEERS AS A RESULT of NRC Audit)	7/14/82	0

## 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	QADP 5.0 (DESIGN PROCESS)	7/1/80	1
2	3	QADP 5.1 (DESIGN INPUTS)	5/3/76	0
3	3	QADP 5.2 (DESIGN ANALYSIS)	4/2/79	3
4	3	QADP 5.3 (INTERFACE CONTROL)	5/1/80	1
5	3	QADP 5.4 (DESIGN VERIFICATION)	4/30/81	3
6	3	QADP 5.6 (SPECIFICATION PROCEDURES FOR THE PREPARATION AND QUALITY ASSURANCE OF SPECIFICATIONS)	5/6/77	2
7	3	QADP 5.7 (DESIGN CHANGE, FIELD CHANGE (FAR), CORRECTIVE ACTION)	10/15/81	3
8	6	V-PSD-088 (TRANSMITTAL OF ANPP CVCS COMPONENT DESIGN PARAMETERS)	2/10/76	
9	6	SP-PSD-139 (SYSTEM 80 CVCS DESIGN PARAMETERS)	7/23/75	
10	6	SP-PPE-140 (COMPONENT ENVIRONMENTAL QUALIFICATION FOR SYSTEM 80 STANDARD DESIGN)	1/7/75	
11	2	SYS80-PE-403 (SPEC. FOR RECIP. CHARGING PUMP)	1/28/76	0
12	2	SP-PCE-265 (SPEC. CHANGES TO SYS80-PE-403, REV 00)	4/5/76	0
13	2	SP-PCE-265 (SPEC. CHANGES TO SYS80-PE-403, REV 00)	4/12/77	1
14	3	PE QA PROCEDURE No. 001 (DESIGN QA PROCEDURE)	8/1/75	1
15	8	PLANT ENG. Doc. Approval / Distribution - SYS80-PE-403 REV 00	1/28/76	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:

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

DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
16	8	PE DOCUMENT Approval/Distribution - SP-PCE-265 R-0	4/19/76	NA
17	8	PE DOCUMENT Approval/Distribution - SP-PCE-265 R-1	4/28/77	NA
18	8	CALCULATION # MISC-PEC-189 (CVCS Purification Component Design Requirements and Sizing Standard Plant)	4/17/74	0
19	8	CALCULATION # MISC-PEC-189	3/20/75	1
20	8	CALCULATION # MISC-PEC-189	9/30/76	2
21	8	CALCULATION # MISC-PEC-189	6/24/77	3
22	8	CALCULATION # MISC-PEC-189	9/19/77	4
23	8	CALCULATION # V-PEC-032 (ARIZONA CVCS Purification Component Design Requirements and Sizing)	10/13/76	0
24	8	CALCULATION # V-PEC-032	7/13/77	1
25	2	14Z73-PE-403 (Project Specification for Reciprocating Charging Pumps for ANPP Units 1, 2, & 3)	2/6/76	0
26	6	V-PSD-088 (ANPP CVCS Component Design Parameters)	2/19/76	NA
27	8	DOCUMENT Approval/Distribution (ARIZ. CHARGING PUMP OUTLINE DWG)	5/18/76	NA
28	1	TO LAPD (ANPP-CHARGING PUMP OUTLINE DWG-D15385, R-0)	5/19/76	NA
29	7	LAPD → CE (SPECS. 14Z73-PE-403, R-0; SYS80-PE-403, R-0)	4/7/76	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:

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



Inspector R.H. Brickley  
 Scope/Module Design Inspection

DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
30	7	C.E. → LAPD (ANPP PACKAGE 451 CHARGING PUMP)	5/20/76	NA
31	7	C.E. → LAPD (Dwg D15385, PUMP OUTLINE, R-1)	7/26/76	NA
32	8	DOCUMENT REVIEW FORM (Spec 14273-PE-403, REV 0)	2/17/76	NA
33	2	14273-PE-403 (RECIPE/COATING CHARGING PUMPS for ANPP)	4/12/82	1
34	8	DOCUMENT DISTRIBUTION/Approval (DVA) (Spec 14273-PE-403, REV 1)	4/8/82	NA
35	8	DD/A (REQ'N V-PE-76-038)	4/19/76	NA
36	8	DD/A (REQ'N V-PE-76-037)	4/19/76	NA

- Document Types:
- Drawing
  - Specification
  - Procedure
  - QA Manual
  - Purchase Order
  - Internal Memo
  - Letter
  - Other (Specify-if necessary)
- Columns:
- Sequential Item Number
  - Type of Document
  - Date of Document
  - Revision (If applicable)

