

ORGANIZATION: G. H. BETTIS COMPANY  
HOUSTON, TEXAS

REPORT NO.: 99900715/81-01 INSPECTION DATE(S): 7/13-14/81 INSPECTION ON-SITE HOURS: 13

CORRESPONDENCE ADDRESS: G. H. Bettis Company  
ATTN: Mr. A. T. Locascio  
Quality Assurance Manager  
7031 Grand Boulevard  
Houston, TX 77021

ORGANIZATION CONTACT: Mr. A. T. Locascio, Quality Assurance Manager  
TELEPHONE: (713) 748-1143

PRINCIPAL PRODUCT: Pneumatic, hydraulic and electrical actuators and controls.

NUCLEAR INDUSTRY ACTIVITY: G. H. Bettis Company has orders for actuators that will be installed in the following nuclear plants: (1) Washington Public Power Supply System Nuclear Projects 1 and 4; (2) Carolina Power and Light Company-Shearon Harris Nuclear Power Plant, Units 1 and 4; (3) Tennessee Valley Authority: (a) Hartsville Nuclear Plant, Units 1 and 4; (b) Phipps Bend Nuclear Plant, Units 1 and 2. G. H. Bettis Company's contribution to the nuclear industry represents approximately two percent of its total work load.

ASSIGNED INSPECTOR:

*Wm. D. Kelley*  
Wm. D. Kelley, Reactive Inspection Section (RIS)

*9-15-81*  
Date

OTHER INSPECTOR(S):

APPROVED BY:

*I. Barnes*  
I. Barnes, Chief, RIS

*9-15-81*  
Date

#### INSPECTION BASES AND SCOPE:

- A. BASES: Implementation of 10 CFR Part 21, 10 CFR Part 50, Appendix B, and applicable codes and standards.
- B. SCOPE: This inspection was made as a result of the construction deficiency reports issued by Mississippi Power and Light Company concerning: (1) damaged wires in pneumatic actuator terminal boxes that had been sold to the Henry Pratt Company for assembly on valves supplied to Grand Gulf, Unit 2; and (2) failure of the eight 20-inch air operated Henry Pratt Company valves with G. W. Bettis Company actuators in the Grand Gulf, Unit 1, Containment and Drywell Heating Ventilation and Air Conditioning System to close within the specified four seconds. Additional areas inspected included: follow up of corrective action on G. H. Bettis Company 10 CFR Part 21 reported deficiency in NS21C-SR actuators and status of previous inspection findings.

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PDR GA999 EECBET  
99900715 PDR

DESIGNATED ORIGINAL

Certified By

*Rheanne Joubert, RIV*

A. VIOLATIONS:

None

B. NONCONFORMANCES:

None

C. UNRESOLVED ITEMS:

None

D. STATUS OF PREVIOUS INSPECTION FINDINGS:

(Closed) Deviation (80-01): Contrary to Criterion XVIII of Appendix B to 10 CFR Part 50 neither the QA Manual (Section 18.0) required follow-up action by reaudit of deficient areas to be performed, nor were such actions taken with respect to two deficiencies identified in Corrective Action Request CAR-0012 and CAR-0013.

The inspector verified that: (1) the QA Manual Section 18.0 had been revised and required follow-up action by reaudit of deficient areas; (2) a Follow-Up Action Report form had been developed and used to document corrective action taken; and (3) the forms had been implemented on other CAR's.

E. OTHER FINDINGS OR COMMENTS:

1. Mississippi Power and Light Company's 'MP&LC) Construction Deficiency Reports.

- a. Damaged Wires in the Pneumatic Actuator Terminal Boxes. The inspector was informed that the actuators furnished to the Henry Pratt Company (HPC) were the G. H. Bettis Company standard commercial actuators and no quality control records were maintained during manufacturing or testing.
- b. Failure of Valves with G. H. Bettis Company Actuators to Close Within the Specified Four Seconds: The inspector was informed that site construction had bought and replaced the ASCO solenoid valves supplied by G. H. Bettis Company as an integral part of their actuators. Subsequent to the inspection, the inspector was informed by MP&LC personnel that the closure time had been evaluated as contributable to the purchase of the wrong solenoid valves and the correct solenoid valves had been ordered.

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INSPECTION RESULTS:

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2. Corrective Action on 10 CFR Part 21 Report - The inspector reviewed six customer purchase orders, ten sales orders, six shop orders, three customer specifications, and five letters to verify that all N521C-SR actuators identified by customers as requiring modifications had been corrected or shop orders had been issued to correct them in the shop prior to shipment.
3. Orientation of Pneumatic Actuators - The G. H. Bettis Company catalogue does not inform the purchaser, that pneumatic actuators are supplied to be mounted in the horizontal position, unless a different orientation is specified in the procurement documents.

The G. H. Bettis Company placed a "Hold" on all current orders and requested their customer to inform them of the installed orientation of the pneumatic actuators.

Inspector Wm D Kelley

Scope/Module 292716B

DOCUMENTS EXAMINED

| 1  | 2  | TITLE/SUBJECT   | 3        | 4 |
|----|----|---|----------|---|
| 01 | 5  | Fisher Controls Co. P.O. 7206697 (Continental Div.)   | 09-15-77 | 0 |
| 02 | 9  | G.H. Bettis S.O. 8-1741-03  | 05-22-81 | 0 |
| 03 | 4  | G.H. Bettis S.O. 8-1741-08  | 05-01-81 | 0 |
| 04 | 5  | Fisher Controls Co. P.O. 5206554  | 09-24-75 | 3 |
| 05 | 9  | G.H. Bettis S.O. 5-3015-01  | 09-26-75 | 0 |
| 06 | 10 | G.H. Bettis 75-3015-0A  | 05-21-81 | 0 |
| 07 | 5  | Fisher Controls Co. P.O. 5206556  | 09-24-75 | 0 |
| 08 | 10 | G.H. Bettis 5-3013-0A   | 05-21-81 | 0 |
| 09 | 7  | G.H. Bettis - Reporting by G.H. Bettis Corporation Concerning NS21C52<br>NS22C52 Actuators in Accordance with 10-CFR 21 | 11-18-80 | 0 |
| 10 | 5  | Jamesbury Corp P.O. 6-17138   | 09-07-75 | 0 |
| 11 | 2  | Jamesbury Corp 8 090-2144-00  | 07-13-78 | 0 |
| 12 | 9  | G.H. Bettis 8-2009-0C   | 06-22-81 | 0 |
| 13 | 5  | Pesi-Seal International, Inc. P.O. F-8013   | 04-02-80 | 0 |
| 14 | 9  | G.H. Bettis 50 0-9032-00  | 04-17-80 | 0 |
| 15 | 19 | G.H. Bettis 50 0-9032-0A  | 07-06-81 | 0 |
| 16 | 10 | G.H. Bettis 80-9032-0A  |          |   |

Document Types:

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

Columns:

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

Inspector W<sup>m</sup> D. KelleyDocket No. 99900715  
Report No. 81-01  
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## DOCUMENTS EXAMINED

| 1  | 2  | TITLE/SUBJECT                            | 3        | 4 |
|----|----|--|----------|---|
| 17 | 7  | G.H. Bettis to Tulsa Div. of Yonex Corp. | 11-18-80 | 0 |
| 18 | 7  | G.H. Bettis to Henry Pratt Co.           | 11-18-80 | 0 |
| 19 | 7  | G.H. Bettis to Henry Pratt Co.           | 01-26-81 | 0 |
| 20 | 7  | Henry Pratt Co. to G.H. Bettis           | 05-20-81 | 0 |
| 21 | 9  | G.H. Bettis 8-0634-00                    | 06-29-78 | 0 |
| 22 | 10 | G.H. Bettis 8-0634-00                    | 01-17-77 | 0 |
| 23 | 10 | G.H. Bettis 78-0634-0A                   | 06-17-81 | 0 |
| 24 | 9  | G.H. Bettis 9-9023-00                    | 05-29-79 | 0 |
| 25 | 10 | G.H. Bettis 79-9023-00                   | 03-27-79 | 0 |
| 26 | 9  | G.H. Bettis 9-9024-00                    | 05-29-79 | 0 |
| 27 | 10 | G.H. Bettis 79-9024-00                   | 04-30-79 | 0 |
| 28 | 2  | Henry Pratt Co 1353977                   | 05-19-78 | 0 |
| 29 | 5  | Henry Pratt Co. 1365493                  | 07-05-78 | 0 |
| 30 | 10 | G.H. Bettis 8-1515-00                    | 07-25-78 | 0 |
| 31 | 9  | G.H. Bettis 8-1515-00                    | 07-12-78 | 0 |
| 32 | 2  | Henry Pratt Co 1000674                   |          |   |

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Inspector W<sup>m</sup> D. KelleyDocket No. 99900715  
Report No. 81-01  
Page 3 of 4Scope/Module 292702BDOCUMENTS EXAMINED

| 1  | 2  | TITLE/SUBJECT   | 3        | 4 |
|----|----|---|----------|---|
| 33 | 11 | FAR #0003 Internal Audit of the Quality Assurance Program<br>CAR #0016 "Corrosion problem concerning the 3R and<br>5R Battiswitch"        |          |   |
| 34 | 7  | Henry Pratt Co. to NRC-RIII, Subject "Non-Compliance<br>Reporting Under 10CFR, Part 21, Sec. 206 of<br>Energy Reorganization Act of 1974" | 04/10/79 |   |
| 35 | 7  | Henry Pratt Co. to NRC-RIII, Subject "Potential Defect<br>Reporting Under 10CFR, Part 21, Section 206 of<br>Energy Reorganization Act"    | 08/14/79 |   |
| 36 | 7  | Henry Pratt Co. to MP&LG, Subject "Potential<br>Defect Reporting Under 10CFR, Part 21, Section 206<br>of Energy Reorganization Act."      | 08/20/79 |   |
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6. Internal Memo
7. Letter
8. Other (Specify-if necessary)
- 9
- 10.
11. Follow Up Action Report
12. Correction Action Request

## Columns:

1. Sequential Item Number
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Dates July 13-14, 1981

Inspector Wm D. Kelley

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TITLE(Please Print)

ORGANIZATION(Please Print)

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