

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION IV

Report No. 99900357/80-01

Program No. 51300

Company: Jamesbury Corporation  
640 Lincoln St.  
Worcester, Massachusetts 01605

Inspection Conducted: June 2, 1980

Inspector: *W. D. Kelley* 06/27/80  
Wm. D. Kelley, Contractor Inspector Date  
Components Section I  
Vendor Inspection Branch

Approved by: *D. E. Whitesell* 06/27/80  
D. E. Whitesell, Chief Date  
Components Section I  
Vendor Inspection Branch

Summary

Inspection on June 2, 1980 (99900357/80-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B and applicable codes and standards including, design and document control-design input, nonconformance and corrective action, and audits. Also performed a review of vendors activities and conducted an exit interview in which the inspector was informed of a 10 CFR 21 Report. The inspection involved eight (8) inspector-hours on site by one (1) NRC inspector.

Results: In the three (3) areas inspected, no deviations or unresolved items were identified.

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DETAILS SECTIONA. Persons ContactedJamesbury Corporation (JC)

- \*T. A. Bibby - QA Engineer
- \*G. P. Menard - QA Engineering Supervisor, Projects
- T. G. Therkildsen - Project Engineer

\*Denotes those persons who attended the Exit Interview.

B. General Review of Vendor's Activities

1. There has been no change of the status of the ASME Certificates of Authorization, the authorized inspection agency, or the authorized nuclear inspector as reported in NRC IE Report Number 99900357/79-01.
2. JC's contribution to the nuclear industry represents approximately seven percent (7%) of its workload.

C. Design and Document Control - Design Input1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures had been prepared and approved by the vendor to prescribe a system for the control of the design inputs which are consistent with NRC rules and regulations and the vendor's commitments in the ASME accepted Quality Assurance Program.
- b. The design input procedures are properly and effectively implemented.

2. Method of Accomplishment

The objectives of this area of the inspection was accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 10
  - (1) Section 2, "Item and Order Coding and Identification," and
  - (2) Section 3, "Order Acknowledgement and Preparation of Source Documents;"

to verify the vendor had established procedures to prescribe a system for control of design input.

- b. Review of Work Instruction D.6, Revision 0, "Processing of Nuclear and Nuclear-Related Product and Parts through Project Engineering" to verify that they had been prepared by the designated authority, approved by management, and reviewed by QA.
- c. Review the documents referenced in paragraphs a. and b. to verify they had been properly and effectively implemented, the design input is correct and had been reviewed, verified, and documented.
- d. Interviews with personnel to verify that they are knowledgeable in the procedures applicable to design input.

### 3. Findings

- a. The inspector verified that:
  - (1) Procedures had been prepared and approved by the vendor to prescribe a system for the control of the design inputs which are consistent with NRC rules and regulations and the vendor's commitments in the ASME accepted Quality Assurance Program.
  - (2) The design input procedures are properly and effectively implemented.
- b. Within this area of the inspection, no unresolved items were identified.

### D. Nonconformance and Corrective Action

#### 1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures have been developed and approved by the vendor which prescribes a system for the control of nonconformances, and assures positive corrective action in a manner which is consistent with NRC rules and regulation, and the vendor's commitments in the ASME accepted Quality Assurance Manual.
- b. The procedures for controlling nonconformances and corrective actions are being properly and effectively implemented.

## 2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

a. Review of the ASME accepted Quality Assurance Manual, Revision 10

(1) Section 11, "Identification and Control of Rejected Items,"  
and

(2) Section 13, "Corrective Action;"

to verify that the vendor has established procedures which prescribes a system for identifying and reporting nonconformances and assures appropriate corrective actions.

b. Review of the following documents:

(1) Work Instruction B.11 Revision 1 "Nuclear Internal Corrective Action" to verify that procedures for controlling nonconformances have been reviewed and approved and the procedures established the responsibility for the receipt and analysis of nonconformance reports, recommending corrective action, and follow-up activities to verify that the corrective action performed and the action initiated preclude recurrence. Also, to verify that the procedure provides for management participation in reviewing nonconformance reports and enforcing the necessary corrective action.

c. Review of approximately twelve (12) corrective action reports to verify that the nonconformance and corrective action procedures are being properly implemented, relating to assigned responsibilities, the identification and reporting of nonconformances, the evaluation for corrective action. Also to verify that the disposition of the corrective action was timely and that a follow-up inspection was performed to verify that the corrective action was correctly implemented.

d. Interviews with personnel to verify they are aware of, and had access to, the nonconformance and corrective action procedures.

## 3. Findings

a. The inspector verified that:

(1) Procedures have been developed and approved by the vendor that prescribed a system for the control of nonconformances and assured effective corrective action in a manner that is consistent with NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Program.

- (2) The nonconformance and corrective action procedures are properly and effectively implemented by the vendor.
- b. Within this area of the inspection, no deviations or unresolved items were identified.

## E. Audits

### 1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures had been prepared and approved by the vendor that prescribed a system for auditing which is consistent with NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Program.
- b. The vendor audit procedures are properly and effectively implemented.

### 2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 10,
  - (1) Section 10, "Vendor Approval and Audits" and
  - (2) Section 14, "Audits;"to verify that procedures had been established to prescribe a system for auditing, which is consistent with NRC rules and regulations.
- b. Review Work Instruction Manual B.8, Revision 2, "Nuclear Internal Quality Audits" to verify that it had been prepared by the designated authority, approved by management, and reviewed by QA.
- c. Review of documents referenced in paragraph a. and b., to verify that they identify the organizations responsible for auditing, and their responsibilities; review Work Instruction B.16, Revision 0, "Qualification and Certification of Audit Personnel" to verify it establishes audit personnel qualifications and training, and verify that the audits are performed by qualified personnel. Also, to verify that the essential elements of the audit system is established.
- d. Review of the vendor audit schedules to assure that the audits of the vendor's quality activities during design, procurement and manufacture are planned, documented, and conducted in the prescribed manner, and assures coverage of all aspects of the QA program.

- e. Review of vendor's audit reports to verify that they include provisions for written plans, team selection, team orientation, audit notifications, pre-audit conferences, audit performances, and post-audit conferences.
- f. Review of vendor audit reports to verify that they are properly distributed to management and the audited vendor organization; and the follow-up audits to verify corrective action is required.
- g. Review of ten (10) selective vendor's audit reports to verify the applicable procedures were available to the audit team personnel, and that the audit procedures were properly and effectively implemented.

### 3. Findings

- a. The inspector verified that procedures had been prepared and approved by the vendor that prescribed a system for auditing which is consistent with NRC rules and regulations and the vendor's commitments in the ASME accepted Quality Assurance Program.
- b. The JC auditor who completed Internal Quality Audit Report #183 had crossed out certain findings in the report and restated his findings in a more positive manner without initialing the change. The auditor initialed the changes prior to the exit interview.
- c. The inspector noted the check lists for Nuclear Internal Audit Reports had been developed by taping selected reproduced elements of documents to JC NQA Form No. 206. Prior to the exit interview an inter office memorandum Memo No. TAB: 268 was issued by the QA engineer stating this practice would no longer be permitted.
- d. Upon identifying a deviation from requirements during an audit, the JC auditor has the prerogative to require a reaudit of the area after corrective action, or identify the finding on a corrective action report. Paragraph 4.2.8 of Work Instruction No. B.8 is not clear concerning the use of a corrective action report to close out an audit finding.

The work instruction was revised to clearly establish that a corrective action report may be used to close out an audit finding. The revision was approved in accordance with the requirements of the ASME accepted Quality Assurance Program, and presented to the NRC inspector during the exit interview.

- e. Within this area of the inspection no deviation or unresolved items were identified.

C. Follow-up on 10 CFR Part 21 Report

1. Background Information

The Jamesbury Corporation was notified by their customer, The Bechtel Corporation, on April 16, 1980, that they were returning one 3 inch "ASME N" stamped, Class 2, Wafer-sphere valve (8226EX-Model A, Serial Number NC-40000-01-C) because they evaluated the leakage thru one of the flange bolt holes as a defect as defined by 10 CFR Part 21. The Jamesburg Corporation notified the NRC-IE RI by letter dated April 18, 1980, of the defect in the valve, in accordance with the requirements of 10 CFR Part 21.

In their letter of April 25, 1980, to NRC IE RI, the Jamesbury Corporation defined the problem as leakage to atmosphere thru one of the flange bolt holes during preoperational system testing. Subsequently, the Jamesbury Corporation reviewed all Nuclear orders for similar type and size of valves, and identified the following orders.

<u>Jamesbury Order</u>	<u>Quantity</u>	<u>Customer</u>	<u>Utility</u>	<u>Site</u>	<u>Unit</u>
NC-21304-03	8*	Bechtel Corp.	PP&L	Susquehanna	1&2
NC-21305-08	8*	Bechtel Corp.	PP&L	Susquehanna	1&2
NC-40000-01	4*	Bechtel Corp.	PP&L	Susquehanna	1&2
NC-48856-10	5**		Comm. Edison	Byron	
NC-48856-11	5**		Comm. Edison	Byron	
NC-48857-11	5**		Comm. Edison	Braidwood	
NC-48857-11	5**		Comm. Edison	Braidwood	

\*valves installed, but unit not operational

\*\*valves not installed

The Jamesbury Corporation Project Management has contacted their customers and requested them to return the valves to Jamesbury Corporation for re-hydrostatic testing and/or repairs as appropriate.

Copies of the Jamesbury Corporation letters were sent to the Director of HQ I&E, but RIV nor the inspector had received copies.

D. Findings

The inspector was informed by the Jamesbury Corporation during the exit interview of the 10 CFR Part 21 report, and furnished copies of their letters dated April 18 and 25, 1980. The quality assurance engineering supervisor informed the inspector that the Jamesbury Corporation had found that of the four (4) 3 inch wafer-sphere valves, only one (1) was identified as leaking through a bolt hole. All four (4) had cast steel bodies supplied by one foundry and had been cast from the same pattern. Also, the Jamesbury Corporation has not completed their testing and evaluation to determine the cause of the reported defect, and/or how the leak had escaped detection during the original hydrostatic test. The inspector informed the quality assurance engineering supervisor, that he would contact him the week of June 15, 1980, for additional information and would review all the data relating to corrective action and generic impact on a subsequent inspection.

The inspector contacted quality assurance supervisor on June 17, 1980, and was informed that they had not received all of the valves requested from their customers; and therefore, their evaluation of the problem was not complete.

E. Exit Interview

At the conclusion of the inspection on June 2, 1980, the inspector met with the company's management, identified in paragraph A, for the purpose of informing them as to the results of the inspection. During this meeting management was informed no deviations or unresolved items were identified.

The company's management acknowledged the inspector's statement and presented him with copies of their letters to NRC IE RI of April 18 and 25, 1980 concerning a 10 CFR Part 21 report of a failure of one of their valves and informed him of the status of their investigation and corrective action.