

VENDOR INSPECTION REPORT

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

Report No. 99900331/78-02

Program No. 44070

Company: Excelco Developments, Inc.
Post Office Box 230
Silver Creek, New York 14136

Inspection Conducted: June 26-30, 1978

Inspector:

J. W. Sutton for

W. M. McNeill, Contractor Inspection, Vendor
Inspection Branch

8-15-78

Date

Approved by:

J. W. Sutton for

D. E. Whitesell, Chief, Components Section I,
Vendor Inspection Branch

8-15-78

Date

Summary

Inspection on June 26-30, 1978 (99900331/78-01)

Areas Inspected: Implementation of 10 CFR 71 Appendix E, Certificate of Compliance, Safety Analysis Report, and applicable codes and standards, including: action on previous inspection findings; machining; procurement; auditing; and training. The inspection involved thirty (30) inspector-hours.

Results: In the four (4) areas inspected, no apparent deviations or unresolved items were identified in one (1) of these areas. The following seven (7) deviations and one unresolved item were identified in the remaining areas.

Deviations: Machining - the program did not provide for suitably controlled conditions particularly for control of cutting oils in accordance with NRC and ASME requirements (Enclosure, Item A.). Machining - inspection reports did not record the gages used in inspection in accordance with NRC and the QA Manual (Enclosure, Item B.). Machining - weld parameter sheets documented that welding did not comply with the WPS in particular for current and filler metal in accordance with NRC and ASME requirements (Enclosure, Item C.). Procurement - subvendors were not required to provide

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a QA program consistent with Appendix E in accordance with NRC and QA Manual (Enclosure, Item D.). Procurement - documentation did not demonstrate that purchased materials conformed to procurement documents in accordance with NRC and the QA Manual. In particular vendors used were not qualified, there was, no evidence that balsa conformed to the purchase order, and valve and safety heads Purchase Requisitions did not contain all the necessary information (Enclosure, Item E.). Procurement - receiving inspection for safety heads, fire valves, etc., was not prescribed by documented instructions in accordance with NRC and QC procedure requirements (Enclosure, Item F.). Audits - scheduled audits were not performed nor were there records of qualification for unscheduled audit personnel in accordance with NRC and QA Manual requirements (Enclosure, Item G.).

Unresolved Item: Machining - there is a question as to what should be the inspection requirements on threads. (Details Section, C.3.b.).

Other Significant Findings: Nuclear Assurance Corporation has identified to the NRC that Excelco is its fabricator. Nuclear Assurance Corporation has stated in its Certificate of Compliance and Safety Analysis Report that Excelco will comply with Appendix E. Appendix E has been pasted on to Excelco by the Nuclear Assurance Corporation contract as part of the design specification.

DETAILS SECTION

A. Persons Contacted

- *W. D. Abbott, Chief Engineer, Excelco
- *L. A. Brooks, President, Excelco
- D. A. Jones, Design-Draftsman, Excelco
- G. P. McDonald, Records, Excelco
- F. I. McLean, Chief Inspector, Excelco
- *M. M. Pulawski, QA Manager, Excelco
- J. P. Shaw, Purchasing Agent, Excelco
- *C. H. McDonnell, Chief, Nuclear Engineer, United States Testing Co.
- *C. C. Hoffman, Manager of Cask Operations, Nuclear Assurance Corporation

*Denotes those attending the Exit Interview.

B. Action on Previous Inspection Findings

(Closed) Deviation (Report No. 78-01): The mandatory edition and addenda was not in use. Excelco has been instructed by Nuclear Assurance Corporation to use the mandatory code for fabrication and inspection.

(Closed) Deviation (Report No. 78-01): Shop travelers did not identify the revision number of documents and were not issued prior to work. A review of current travelers established that the revision numbers are identified.

(Closed) Deviation (Report No. 78-01): Welding procedures were not followed. The welding procedures in question have been revised and approved for use.

(Closed) Deviation (Report No. 78-01): Code requirements on removal of temporary attachments were not followed nor covered in procedures. The requirements have been addressed in a QC procedure and the procedure has been implemented.

C. Machining

1. Objectives

The objectives of this area of the inspection were to verify that machining operations are performed under a controlled system of manufacturing which meets the requirements of applicable NRC ASME code and contract requirements. The objectives also were to verify that the above system is effective in assuring product quality.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Verification that machining is controlled by review of the travelers for five (5) parts currently being machined. These travelers were for part numbers 1030, 1032, and 1033.
- b. Verification that only proper documents are available and being used by review traveler package and the drawing found in the shop.
- c. Verified that changes are handled properly by review of several minor changes to the above travelers.
- d. Verified that identification and traceability was properly maintained on the above parts by inspection of the parts identification.
- e. Verified that some inspections were conducted in accordance with the planning by review of the inspection reports, penetrant inspection reports, and the above travelers.
- f. Verified that provisions have been established for nonconformances by review of the QA Manual, Section 13.
- g. Verified that procedures have been established for corrective action by review of the QA Manual, Section 13.
- h. Verified that some of the gages are under a gage calibration system by review of the five (5) gages found at the work station.
- i. Verified that some measures are implemented to afford protection to the finish of parts by observation of the above parts.
- j. Verification that machining are specified and followed by observation of the machining of the above parts.
- k. Verification that finished parts are properly identified and in conformance with the drawing and specification. Except as noted below.
- l. Verification that records of parts document compliance with requirements by review of the above travelers, inspection reports, tags and weld parameter sheets.

3. Findings

a. Deviation

See Enclosure, Items A thru C.

b. Unresolved Items

The threading requirements which are established on drawing E10080 are American Standard Association (ASA) B1.5. Threads were not inspected in accordance with ASA B1.5 in that the maximum allowable diameters are not checked because Excelco does not have a "not go" type gage. ASA B1.5 requires that production type threads be inspected with "go" and "not go" type gages. However there is a question if the designer intended to require the threads to be inspected to these requirements. Nuclear Assurance Corporation, the designer, will have to more clearly specify the inspection requirements of these threads. It was also noted that the "go" gage that was used for final acceptance had not been checked in accordance with ASA B1.5 requirements in that pitch diameter, out of round, taper, etc., were not verified.

D. Procurement

1. Objectives

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

- a. Procedures have been established for pre-contract and periodic evaluation of suppliers and that these procedures are consistent with applicable regulatory, NRC, ASME code and contract requirements.
- b. The above procedures are adhered to in the awarding of specific contracts for parts and services which are included in the scope of this inspection program.
- c. Procedures have been established for the preparation and review of procurement documents and that these procedures are consistent with applicable regulatory requirements and the manufacturers overall QA plan.
- d. The above procedures are adhered to in the procurement of materials, parts or services which are included in the scope of this program.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Verification that procedures are established and implemented on qualification of supplier by review of the QA Manual, Section 3 and the records of six (6) subvendors. The six include lead pouring, valves, heads, thread parts, and materials e.g. wood and steel.
- b. Verification that the procedures include technical and quality requirements in the evaluation by review of the checklists used for qualification of the above suppliers.
- c. Verification that method of evaluation was consistent in some cases with regulatory code and contract requirements by review of the audits of the above vendors and the ASME Quality System Certificate.
- d. Verification that criteria are established for determining the method of evaluation by review of QC procedure QC-0206 dated January 19, 1968.
- e. Verification that procedures are issued and implemented on the performance of source evaluation by review of the audit reports of the above six (6) subvendors.
- f. Verification that the auditors used in the above were qualified by review of the training records of the above auditors.
- g. Verification that periodic reevaluation is performed by review of the current and previous audits of each of the above subvendors.
- h. Verification that subvendor status is documented by review of the current Qualified Vendors list.
- i. Verification that some procurement documents referenced technical and quality requirements by review of the purchase orders to the above six vendors.
- j. Verification that procurement documents are reviewed by review of QA and Engineering sign-off of the above purchase orders.

- k. Verification that changes as a result of the bid are some time reviewed by review of the requests for quotes for the above purchase orders.
- l. Verification that procurement documents are released and distributed properly by comparison of the P.O. files on the above in quality control and purchasing.
- m. Verification that changes to purchase orders are reviewed by inspection of the P.O. changes to the above P.O.'s
- n. Verification that P.O. include control of documentation and hold points by review of purchase order on lead pouring. Verification of the receiving inspection planning in some cases was consistent with the procurement documents.
- o. Verification that procedures are established for control of subvendor nonconformances by review of the QA Manual, Section 13 and QC procedure QC-0206.
- p. Verification that procedures are established for subvendor corrective action by review of the QA Manual, Section 13, and QC procedure QC-0206.

3. Findings

It was established that three (3) of the six (6) vendors sampled were not given evaluation and selection nor were they on the Qualified Vendors List. There was no documentation that balsa, some of which has been installed, conformed to the density and Mil-Standard stated in the purchase order. Purchase Requisitions for fire valves did not contain modification instructions found on NAC drawing E100E80. The safety heads ordered were not the same part number identified on the NAC drawing E10080. Drawing E10080 is part of the design specification and the certificate of conformance.

a. Deviations

See Enclosure, Items D thru F.

b. Unresolved Items

None.

E. Auditing

1. Objectives

The objectives of this area of the inspection were to verify that procedures have been prepared and approved by the company to prescribe a system for auditing which is consistent with the commitments of the QA Program. The objectives were also to determine that the audit procedures are being properly and effectively implemented by the company.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Verification that audit policy is identified by review of the QA Manual, Section 12.
- b. Verification that responsibilities and authority are documented by review of the QA Manual.
- c. Verification that auditors are independent of audit subject by review of three (3) unscheduled audits performed in cask fabrication.
- d. Verification that auditor qualification requirements are established and documented by review of the QA Manual.
- e. Verification that auditors are qualified by review of the training records of two (2) of the four (4) auditors of the above audits.
- f. Verification that the above records are in conformance with the QA Manual.
- g. Verification that the audit system provides the authority, manpower, etc., by review of the above audits reports.
- h. Verification that audit planning is established by review of the audit checklist used in auditing.
- i. Verification that unscheduled are performed by review of the three (3) unscheduled audits.
- j. Verification that checklists are available by review of the completed checklist of the above audits.

- k. Verification that procedures address nonconformances by review of QA Manual.
- l. Verification that audits are reviewed by management by checking the distribution of the above reports.
- m. Verification that records are stored properly by review of the above records.

3. Findings

There was no schedule established of cask fabrication audits. It was noted that two (2) of the four (4) auditors who performed three (3) unscheduled audits which covered some cask fabrication had no records of their auditor qualification. These audits were on Receiving Inspection and Manufacturing both dated March 24, 1978.

a. Deviations

See Enclosure, Item G.

b. Unresolved Items

None.

F. Training

1. Objectives

The objectives of this area of the inspection were to verify that procedures have been prepared and approved by the company to prescribe a system for personnel training activities which is consistent with the commitments of the QA Program. The objectives also were to determine that the procedures for training activities are being properly and effectively implemented by the company.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Verification that the training program is described and covers the proper personnel by review of the QA Manual, Section 15.

- b. Verification that the training detailed in the QA Manual is implemented by review of the training records.
- c. Verification that the inspection personnel is documented by review of the inspection personnel records.
- d. Verification that NDE personnel are trained in accordance with SNT-TC-1A by review of the NDE personnel record.

3. Findings

a. Deviations

None.

b. Unresolved Items

None.

G. Exit Interview

The inspector met with management representatives (denoted in paragraph A) at the conclusion of the inspection on June 30, 1978. The inspector summarized the scope and findings of the inspection. The management representatives had no comment in response to each item discussed by the inspector.