

Systems Control
Division of M. J. Electric, Inc.
Docket No. 99900712/80-01

NOTICE OF DEVIATION

Based on the results of an NRC inspection conducted on March 25-26, 1980, it appeared that certain of your activities were not conducted in full compliance with NRC requirements as indicated below:

- A. Criterion I of Appendix B to 10 CFR 50 states in part, ". . . The persons and organizations performing quality assurance functions shall have sufficient authority and organizational freedom to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. Such persons and organizations performing quality assurance functions shall report to a management level such that this required authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations, are provided"

QA Manual Section I, paragraph 1.4, states in part, "Manager of Quality Assurance - Functions: Assist in developing and in maintaining a clear-cut program of Quality Control, expressed in terms of written policy." Paragraph 1.5.1 states, "The Manager of Quality Assurance will be responsible to the Executive Manager for accomplishing the above objectives and will be assigned by him sufficient authority for this purpose."

Contrary to the above, the QA/QC Manager is also the Project Engineer for Job No. 26774 (Safety Category 1), thus, reporting to the Chief Engineer rather than to the Executive Manager, as shown by the Corporate Organization Chart. For this Job, the required, separate review and approval of design and engineering documents by the Project Engineer and QA/QC Manager, has been effectively eliminated in that the same person has the authority to review and approve in the project area and in the QA area.

- B. Criterion V of Appendix B to 10 CFR 50 states, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, or a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Deviations from these requirements are as follows:

1. QA Manual Section XVIII, paragraph 18.1 states, "Periodic internal audits of the quality program are essential to assure the effectiveness of the program, to determine if plans and procedures have been properly implemented, and to provide an objective evaluation

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of compliance to established requirements." Paragraph 18.5 states, "Audits of each department shall be performed twice yearly."

Contrary to the above, internal audits have not been performed twice yearly of each department in that the Purchasing Department was last audited on January 3, 1979. A review of the audit checklists did not reveal any audit questions pertaining to the Purchasing Department. Audits of other departments were subsequently performed on July 31, 1979 and January 4, 1980.

2. Purchasing Procedure No. 110, revision 2, paragraph 10 states in part, "The purchase orders are reviewed for incorporation of the following requirements: . . . References to all technical requirements including drawings, codes, standards, specifications, test requirements and special instructions. The requirement for certification of materials or processes."

Certain customer specifications require Certified Material Test Reports for welding materials. Systems Control generally orders welding materials as stock material rather than being ordered for a specific job, thus it can be issued for any job requiring welding.

Contrary to the above, the following discrepancies were noted:

- a. Purchase Order No. Stock 1150, dated February 27, 1980, was placed with a local supplier of welding materials, for ten spools of Airco A675 - 0.035" wire (ER705-3).

There were no Certified Material Test Report requirements stipulated on the purchase order. The material was picked up by Systems Control on the same day and subsequently issued to the shop.

- b. Three spools of the above material, each with a separate heat number, were observed being used in the shop and Systems Control did not have the Certified Material Test Reports.

3. QA Manual Section VI, paragraph 6.1 states in part, ". . . procedures assure that documents, including revisions, are reviewed for adequacy and accepted for release by the responsible personnel" Paragraph 6.2 states in part, "These documents are stamped with a red 'QC' and stamped reviewed and approved by the Quality Control Department. Revisions to documents shall be reviewed and accepted by the same departments that performed the original review and acceptance."

Contrary to the above, numerous drawings were observed in the shop in which the original issue block had been signed off and dated

by the draftsman, a checker, engineering, and quality control; but subsequent revisions had been signed-off and dated only by the draftsman. (See Details Section, paragraph F.3.).

4. QA Manual Section IX, paragraph 9.2 states in part, "Procedures shall be established to control special processes All special processes shall be performed under controlled conditions with qualified written procedures and performed by personnel qualified to that particular procedure."

Contrary to the above, welding was not being performed in accordance with established welding procedure specifications (WPS) as shown by the two following, separate observations:

- a. Welding was observed being performed on Job No. 53079 (safety related), using an amperage range of 100-120 amps while the applicable WPS required the use of 175 amps.
- b. Welding was observed being performed on Job No. 53079 using a CO₂ flow rate of 40 CFH while the applicable WPS required a flow rate of 55CFH $\pm 10\%$

Additionally, these actions appear to nullify the existing qualifications of these WPSs.

(See Details Section, paragraph G.3.)

5. QA Manual Section XII, paragraph 12. states in part, "Systems Control shall assure that all tools, gages, measuring and test equipment are controlled and calibrated" Paragraph 12.7 states in part, "All meters, shall be identified with a calibration sticker"

AWS D1.1-75 Section 3, paragraph 3.1.2 states in part, "All welding and oxygen cutting equipment shall be so designed and manufactured and shall be in such condition as to enable qualified welders . . . to follow the procedures"

Contrary to the above, the ammeters and voltmeters located on all welding power sources are not calibrated and are not identified with calibration stickers.

Further, one power source in use was in a condition that would preclude a qualified welder from following the procedures, in that with the power off, the ammeter was reading 60 amps. Three other power sources were compared against two tong meters, and their condition could not be ascertained, as the tong meters were not calibrated, and the readings on the tong meters were different from those on the power sources. (See Details Section, paragraph H.3)

6. AWS D1.1-75 Section 8, paragraph 8.15 states in part, "All welds shall be visually inspected. A weld shall be acceptable by visual inspection if it shows that: . . .Thorough fusion exists between weld metal and base metal."

Contrary to the above, the inspector identified a weld which exhibited lack of fusion, and which had been accepted by Systems Control and their customer's inspection agency. (See Details Section, paragraph I.3).