

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

REPORT OF LCVIP INSPECTION

Inspection Report No. 99900021/75-01 Docket No. 99900021
Company Name: M. W. Kellogg Company Program No. 44020
Address: Williamsport, Pennsylvania
Type of Inspection: Vendor QA Program
Implementation, NA-4000
Date of Inspection: February 12-14, 1975
Date(s) of Previous Inspection Not Applicable
Lead Inspector: *R. E. Oller* Date: 3/22/75
R. E. Oller, Contractor Inspector, LCVIP Branch
Accompanying Inspector(s) _____ Date: _____
C. C. Williams C. C. Williams, Contractor Inspector, LCVIP Branch
Date: 3/29/75

Date: _____
Reviewed By: *D. E. Whitesell* Date: 4/9/75
D. E. Whitesell, Section Head, LCVIP Branch

SUMMARY OF FINDINGS

A. Deviations From Commitments

Several of the activities at the M. W. Kellogg Company appear to deviate from the requirements of the MWK QA manual. These activities are identified as follows:

1. Procedures Not Available

(Report Details, Paragraphs 8.b, 9.b(1)(g) and 13.b)

2. Procedures Not Followed

(Report Details, Paragraphs 9.b(1)(c), 9.b(1)(e), 9.b(1)(f), and 11.b)

B. Vendor Action on Previously Identified Enforcement Matters

Not applicable.

C. Other Significant Findings

1. Current Findings

- a. Except for the deviations previously identified, and unresolved items hereafter identified, there was evidence, within the areas inspected, that the Vendor's QA Program met the requirements of the ASME Code, Section III, and was being implemented in accordance with that program.
- b. The M. W. Kellogg, Williamsport plant is authorized to use the ASME N Stamp for Class 1, 2, 3 and MC Nuclear Vessels, Maximum Diameter 72 Inches, and the NPT Stamp for Class 1, 2, 3 and MC Nuclear Vessel Parts and Appurtenances and Class 1, 2, 3 Piping Subassemblies. The NPT items are limited to 72 Inches Maximum Diameter. Both of the authorizations expire September 12, 1975. MWK is preparing for a resurvey by the ASME.
- c. The Authorized Inspection Agency is Hartford Steam Boiler Inspection and Insurance Company. The plant is inspected by a resident Authorized Code Inspector.

2. Unresolved Items - This Inspection

- a. Report Details, Paragraph 2.b.
- b. Report Details, Paragraph 3.b(2).
- c. Report Details, Paragraph 5.b.
- d. Report Details, Paragraphs 9.b(1)(a), 9.b(1)(b), and 9.b(1)(d).
- e. Report Details, Paragraph 12.b(2).

3. Status of Previously Reported Unresolved Items

Not Applicable

D. Management Interview

1. An interview was held on February 14, 1975 at the conclusion of the audit with the following personnel:

M. W. Kellogg Company (MWK)

J. E. Bowes, Plant Manager
W. J. Mitchell, QA/QC Manager
K. A. Swisher, QA Engineer
V. W. Messner, QA Engineer
J. J. Krommenhock, Production Manager
W. J. Anderson, Engineering Manager
E. F. Gerwin, Chief Engineer

2. The following summarizes items discussed:

- a. QA Organization Details, Paragraph 2)
- b. QA Program (Details, Paragraph 3)
- c. Design Control (Details, Paragraph 4)
- d. Procurement Control (Details, Paragraph 5)
- e. Document Control (Details, Paragraph 6)
- f. Control of Purchased Material (Details, Paragraph 7)
- g. Identification and Control of Materials, Parts and Components (Details, Paragraph 8)
- h. Control of Special Processes (Details, Paragraph 9)

- i. Inspection (Details, Paragraph 10)
- j. Calibration of Measuring and Test Equipment (Details, Paragraph 11)
- k. QA Records (Details, Paragraph 12)
- l. Audits (Details, Paragraph 13)

REPORT DETAILS

1. Additional Persons Contacted

M. W. Kellogg Company (MWK)

J. Intocaso, Inspection Supervisor
A. Brown, QC Welding Inspector
J. Fornwalt, QC Receiving-Tool and Gage Inspector
F. Richards, Welding Engineer
C. S. Smith, NDE Inspector
A. M. Bair, NDE Level III
J. Webb, Welder
J. Johns, Project Engineer
J. Paucke, Weld Foreman
F. Klementouich, Welder
B. Saggi, Project Engineer
M. S. Wright, Maintenance Electrician
S. L. Engler, NDE Inspector
H. W. Free, QC Inspector

Hartford Steam-Boiler Inspection and Insurance Company (HSB)

M. H. Butt, Authorized Code Inspector (Resident)

2. Quality Assurance Organization

a. Scope

The objective was to verify that the organization was delineated in the QA manual.

b. Findings

Unresolved Matters

Review established that the QA manual, Section I, Paragraph 1.2 and Figure 1 (Plant Organization Chart) and Figure 2 (QA organization Chart) did not clearly delineate lines of communication and internal interfaces from the Shop QA Manager to the Plant Manager, or the Shop QA Manager to the Corporate QA Manager.

This item was discussed with plant management in the post-audit conference. The MWK representative indicated this condition would be corrected.

3. Quality Assurance Program (Manual)

a. Scope

The objective was to verify that the program was being implemented in accordance with the QA manual requirements.

b. Findings

(1) Program

Review established that the program is documented in a controlled QA Manual (QAM) and a record of manual holders is maintained by the plant QA/QC Department. The QAM is being revised for an ASME resurvey scheduled for September 1975.

(2) Unresolved Matter

The MWK QAM Section 12 "Audits" requires Central Staff (corporate) audits of job sites and fabrication plants and In-Plant Audits (Williamsport) on a regular basis by selected personnel.

Contrary to the requirements of NA-4112, no written procedures for the training and indoctrination of audit personnel and for the performance of audits were available. Prior to the completion of the inspection a draft copy of subject procedure was provided for the inspector's review.

4. Design Control

a. Scope

The objective was to verify that the requirements of QAM Section 2 were implemented.

b. Findings

No deviation

Discussion and review established that the practice is for the customer to submit design documents which are then reviewed by MWK project engineer and QA engineers for completeness, accuracy, good practice and compliance to ASME Code, Section III. In cases where design drawings and/or calculations are required by MWK, these activities are performed by the MWK Houston, Texas Engineering Office, where MWK has two registered Professional Engineers who are specialists in pipe design.

5. Procurement Control

a. Scope

The objective was to verify that this requirement of QAM Section 3 of the program was implemented.

b. Findings

Unresolved Matter

Provisions for this requirement are established in the Engineering Specification ES-205 and QA Procedure QAP-7 "Vendor." Neither of which provide for notification of subcontractors where changes in product characteristics are initiated.

6. Document Control

a. Scope

The objective was to verify that this requirement of ASME QA manual was implemented.

b. Findings

No Deviation

Provisions for this requirement were identified as elements in different sections of the QAM. Review of a QA administrative document, "Working Job Instruction" and a "Job Data Compilation Requirements" form, identified all documentation to be completed for a contract, and established that measures were in effect to control the subject requirements.

7. Control of Purchased Material, Equipment and Services

a. Scope

The objective was to verify that the requirement of QAM Section 3 was being implemented.

b. Findings

No Deviation

Implementing provisions were identified in Procedure QAP-7 "Vendors" used for source evaluation and in Procedure ES-722 "Visual Receiving Inspection." The latter procedure was used for making purchase requisitions, source inspections and receiving inspections.

8. Identification and Control of Materials, Parts and Components

a. Scope

The objective of this audit was to verify that requirements of QAM Section 4 were implemented; that QA measures and implementing procedures exist that provide traceability of an item by physical identification back to the original material. This was accomplished by random sampling of in-process items and detailed review of QA/QC Procedures.

b. Findings

Deviation - Procedure Not Available

The implementing procedure No. ES 151 titled "Standard Marking Requirements for Nuclear Piping Components ASME Section III" was not available at the pipe cutting station. Moreover, in response to questioning, neither the foreman in charge nor the personnel marking and providing traceability for piping materials acknowledged prior knowledge of the existence of this documented procedure. This matter was discussed in the post audit interview.

9. Control of Special Processes

a. Scope

The objective was to verify that procedures required in QAM Section 4, 5 6 and 8 had been established and implemented to assure that special processes, including welding, heat treating and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedure. This was accomplished by review of applicable procedures, records and observation of work involving current nuclear contracts.

b. Findings

(1) The following matters were identified by this audit:

(a) Unresolved Matter

The QAM does not contain an implementing procedure for visual examination or inspection as required by ASME Section III, Paragraph NA-4420.

(b) Unresolved Matter

The QAM does not contain a procedure for handling, storage, and interpretation of radiographs as required by ASME Section III, NA-4420.

(c) Deviation - Procedure Not Followed

Contrary to requirements of QAM Section 6.2, statements of certification and qualification records common to procedures for magnetic particle, ultrasonic and radiographic examination, were unavailable for review.

(d) Unresolved Matter

Traceability of liquid penetrant material, in unidentified containers, could not be established as required by ASME Code, NA-4441.

(e) Deviation - Procedure Not Followed

Contrary to the requirement of QAM, Section 8, for return and reconditioning of low hydrogen weld rod unused after four hours, no records were generated and maintained to verify compliance with the requirement.

(f) Deviation - Procedure Not Followed

Contrary to the requirement of the QAM Section 4 wherein the project engineer identifies specific procedures and revisions for a given contract process sheet, the NDE Procedure E 404, Revision 3, in use on a specific contract, could not be identified to the related traveler package.

The contractor's management acknowledged this finding during the post audit interview.

(g) Deviation - Procedure Not Available

Contrary to the requirements of the Section 4.1 (Process Control) and Section 5.3 (Welding Production Control) of the QA Manual, welding on commercial nuclear piping was performed although neither the foreman nor the welder had a copy of the procedure available.

(2) Control of Special Processes (Welding Procedures)

(a) Scope

The objective was to verify that the requirements of QAM Section 5 were implemented.

(b) Findings

No Deviations

Review established that Company Standard Welding Procedures were contained in a volume in the welding engineer's office. This volume included procedures for welding carbon steels, austenitic stainless steels, chrome-moly steels and dissimilar metals. Procedures for each group included a general welding procedure, and related welding procedure specifications (WPS) with their respective qualification records (WPQ). Review established that the procedures, WPSs and WPQs, were in accordance with QAM Section 5 and ASME Code.

The vendor's representative acknowledged these remarks during the post audit interview.

10. Inspection

a. Scope

The objective was to verify that requirements of the QAM Section 4 had been implemented to assure compliance with documented instructions. This was accomplished by reviewing the applicable procedures of the M. W. Kellogg QA/QC manuals and records.

b. Findings

There were no deviations identified.

The vendor's representative acknowledged this comment during the post audit interview.

11. Calibration of Measurement and Test Equipment

a. Scope

The objective was to verify requirements of QAM Section 7 were implemented and that procedures have been established to assure that tools, gauges, instruments, and other measuring and testing devices are properly controlled, calibrated, and adjusted at specified periods. This was accomplished by a review of the applicable procedures referenced or contained in the M. K. Kellogg QA Manual and the associated records at the plant.

b. Findings

Deviation - Procedure Not Followed

Contrary to requirements of QAM Section 7 the instruments identified by the plant maintenance engineer as those Reference Instruments he used to calibrate plant welding machines and magnetic particle test devices, were found not to have evidence of any calibration at all. In response to questioning the maintenance engineer could not recall any calibration at any time of these Referenced Instruments he used. The welding engineer responsible for calibration of the plant instruments identified another group of calibration instruments. The identified ammeter had not been calibrated in over two years. A specific period for the calibration of Referenced Instruments is not identified in the QA program. The voltmeter had no documents to support the calibration sticker attached. Moreover, the maintenance engineer who had performed calibrations of numerous devices was not aware of the existence of the QC procedures which govern this work. In response to questioning he said that the work requisition requesting weld machine and other instrument calibrations do not identify the procedure.

The vendor's representative acknowledged these conditions during the past audit interview.

12. Quality Assurance Records

a. Scope

The objective was to verify that requirements of QAM Section 9 were implemented and procedures had been established and implemented to assure that sufficient records are maintained to furnish evidence of activities affecting quality such as logs, inspections, tests, audits, monitoring of work performance, materials analysis, qualifications of personnel, procedure and equipment. This was accomplished by review of the M. W. Kellogg QA Manual, ES/QC procedures and records associated with review of each of the other areas of this audit as identified in Paragraphs 1 to 12.

b. Findings

(1) Filing Instruction

Documented filing instructions titled "QA Office Procedure Filing Instruction" were identified in the QA administrative office.

(2) Unresolved Matter

There was no formal procedure available delineating storage protection measures to preclude destruction and/or deterioration of records as required in ASME Section III, Paragraph NA-4920.

(2) Except as identified in other paragraphs of this Report Details, no further deviations were identified.

The vendor representative acknowledged these comments in the post audit interview.

13. Audits

a. Scope

The objective was to verify that the requirement of QAM Section 12 was implemented.

b. Findings

Deviation - Procedure Not Available

Provisions for this requirement in the QAM included Management Audits and In-Plant audits. Contrary to Section 12, no formal procedure for In-Plant audits was available.

At the termination of the inspection a draft copy of an In-Plant audit procedure was provided. The M. W. Kellogg representative indicated this procedure will be formalized.

14. Authorized Code Inspector (AI)

Discussion with the resident AI provided the following information:
The AI has been inspecting at the Williamsport plant for 15 years.
He is in the process of a formal training presented by his company
(Hartford Steam Boiler Inspection & Insurance Company) in preparation
for examination and certification as a nuclear inspector.