



May 22, 1980

Mr. Uldis Potapovs, Chief
Vendor Inspection Branch
United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, TX. 76012

Dear Mr. Potapovs:

Reference: Docket No. 99900036/80-01

The following information is offered in response to the Q.A. Program inspection conducted of Combustion Engineering, Inc. at Chattanooga, Tennessee, on April 7 through April 11, 1980, by Messrs. I. Barnes and L. Ellershaw.

DEVIATION "A"

Paragraph 2.1.8 in QC Procedure No. 14.1, Revision F, states in part, "All shop traveler sequences shall be signed off in order except when specific approval deviate is shown on the traveler. This deviation authorization shall take one of the following formats:

2.1.8.1 Bracketed Operations:

10 Sequence within bracket may be performed in any order but
20 must be completed prior to progressing beyond the bracket.
30

..."

Contrary to the above, the following was noted with respect to the shop traveler for a reactor vessel outlet nozzle, Contract No. 12678, Job and Control No. 771128-005:

1. Sequence 100 (Buttering) was observed in progress although previous bracketed operations, Sequence 60 to 80, had not been signed off on the traveler.
2. Sequence 115 and 117, which pertained to post-weld preheat requirements after completion of the Sequence 100 welding operations, had been signed off in error, with the correct operations, Sequence 95 and 97 (which were hand entered on the traveler on the same day as the Sequence 115 and 117 signoff) still unsigned.

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C-E's Response

A review has been completed concerning the identified traveler, and it was determined that the work was performed in proper order, contrary to the sign-off mixups. Part of the problem was related to the added operations which were similar in appearance to existing operations on the same traveler. The traveler signoffs were appropriately corrected the week of April 7, 1980.

In order to prevent recurrence of this type problem, responsible Shop Foremen were confronted with the identified deviation, and additional instructions were given by the Shop Superintendent concerning the necessity of following procedure requirements.

DEVIATION "B"

Paragraph 2.4.2, subparagraph 2.4.2.1 in System No. 5, Revision E (Modifications for Nuclear Work Performed by Fossil Power Systems) in the Q.A. Manual states in part, "Procedures for product control are those which detail the methodology, parameters, and acceptance criteria for manufacturing and appraisal operations required to be performed in accordance with ASME Code, regulatory, and customer specifications. Included in this classification are Detail Welding Procedures and Detail Welding Procedure Specifications . . . ; Material and Process Specifications (M&P) . . . , controlling . . . metal forming operations"

Contrary to the above, M&P Specification N-5.510.1(d), which was identified on the shop traveler for Contract No. 72473, Job and Control No. 725722-007, to be used for the forming of pipe segments, did not detail the necessary methodology, parameters, and acceptance criteria for manufacturing and appraisal operations to assure accordance with ASME Code forming qualification requirements. (See Details I, C.3.a.(2)).

C-E's Response

Subsequent to the NRC inspection, a further review of piping forming activities was completed and additional documentation was revealed in the piping forming area. Specifically, the Foreman in charge of these activities was in possession of dimensional tables showing diameter versus thickness and the percentage strain produced when cold sizing from one diameter to another. This documentation cites the 3.5% maximum strain and Foremen utilize this table in order to determine hot forming dimensions. The only problem found was that the table was not within an existing document control system and actual dimensions checked after hot forming were not being recorded.

In light of the additional documentation, we contend that a potential problem has never existed due to the tolerance available at cold sizing, i.e., a 30" diameter pipe 2-5/8" wall thickness could be cold sized from approximately 57" diameter down to 30" diameter without exceeding the 3.5% maximum strain.

Based on this further review of pipe forming activities, we offer two (2) corrective measures.

1. Action has been initiated to delete the reference to NB-4213 in M&P 5.5.10.1, and a table will be added delineating dimensional requirements for hot forming.
2. An operation will be added to shop travelers requiring that actual diameter dimensions be recorded after hot forming. These two (2) corrective action measures will be implemented on or before July 31, 1980.

DEVIATION "C"

Paragraph 2.3, subparagraph 3 in System No. 9 of the Q.A. Manual states in part, "Prior to issuance of Detail Welding Procedures (DWP) . . . Design Engineering - Materials and Welding Group (DE-M&WG) shall assure they are qualified as being compliant with ASME Code and customer requirements. DE-M&WG shall be responsible for the preparation and maintenance of the Welding Procedure Qualification Record . . . which serves as the objective evidence of a satisfactory welding procedure"

Contrary to the above, the identified Welding Procedure Qualification Records applicable to DWP SAA-SMA-1.1-103-1 did not serve as objective evidence of a satisfactory welding procedure, in that they did not provide for full qualification of the permitted electrical parameter ranges. (See Details I, D.3.a.).

C-E Response

An investigation revealed this to be an isolated oversight and that other supporting Weld Procedure Qualification Records were available that would qualify the DWP. The revision of the identified DWP will be completed on or before June 6, 1980.

In that this deviation has been determined to be an isolated finding, additional corrective action of other than identifying the deviation to responsible personnel is considered inappropriate. This action was completed on 5/1/80.

DEVIATION "D"

Q.A. Manual System No. 7, paragraph 2.1.8, states in part, "Vendor audits shall be performed in accordance with Paragraph 2.1.4 of this system" Paragraph 2.1.4 states in part, ". . . personnel performing the survey shall be from one of the following organizations. A. Nuclear Quality Assurance. B. Other Combustion Engineering, Inc. Divisions or Groups. C. Qualified agencies The organizations shown in "B" and "C" above must be approved. . . ."

Contrary to the above, a vendor audit, the results of which have been accepted by Combustion Engineering, Chattanooga Nuclear Operations (CE-CNO) was performed by another Combustion Engineering, Inc. division which had not been approved by CE-CNO.

C-E's Response

On April 25, 1980, work was completed of qualifying the other Combustion Engineering organization for the purpose of performing surveys and audits. This action completed the work that was started in February, 1980.

This deviation was isolated to the one instance and additional corrective action of other than identifying the deviation to responsible personnel is considered inappropriate.

DEVIATION "E"

Quality Control Procedure No. 8.1, paragraph 2.2 states in part, . . . "At the end of each shift, all unused electrodes issued for use on jobs which are not completed shall be returned to their containers along with the applicable weld material requisitions."

Contrary to the above, unused electrodes were not returned to their respective containers, in that oven number 1608 had two containers designated for different size E8018 electrodes in which comparable size E7018 electrodes were mixed in; e.g., one container had 1/4" E8018 and E7018 electrodes mixed together, and another container had 5/32" E8018 and E7018 electrodes mixed together.

C-E's Response

Action was completed during the NRC inspection of segregating the mix of welding material in the electrode holding oven.

In order to prevent recurrence of a similar mixup, both responsible personnel and supervision have been re-instructed concerning the importance of weld material segregation. Also, Rod Room Attendants on each shift have been instructed to review the rod ovens daily for any oversight from the previous shift. This action, which was completed on or before April 25, 1980, along with increased audit coverage of this area by NQA, should prevent recurrence of a similar problem.

Mr. Uldis Potapovs
NRC

-5-

May 22, 1980

No information contained in the U.S. NRC Report or in this response is considered proprietary.

If additional information is required, please advise.

Very truly yours,

COMBUSTION ENGINEERING, INC.

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