

Norwalk Fabricators, Inc.
Docket No. 99900749/81-01

NOTICE OF NONCONFORMANCE

Based on the results of an NRC inspection conducted on May 18-22, 1981, it appears that certain of your activities were not conducted in accordance with NRC requirements as indicated below:

Criterion V of Appendix B to 10 CFR Part 50 states: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of 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."

Nonconformances with these requirements are as follows:

- A. QA Manual Section No. 8, paragraph 8.11 states in part, "The Quality Control Traveler shall indicate to manufacturing and Quality Assurance all shop operations, . . . inspections and holdpoints. . . . Manufacturing shall not proceed beyond any inspection or holdpoints until they have been released by the applicable parties (Authorized Nuclear Inspector, Customer, Quality Assurance). All inspection and holdpoints shall be documented on the applicable . . . Inspection Report and Quality Control Traveler."

Contrary to the above, Authorized Nuclear Inspector, Customer, and Quality Assurance designated hold points on travelers for heat exchangers and the gas stripper column furnished to Combustion Engineering for installation at TVAs Yellow Creek Nuclear Plant, Unit 1, were not documented as having been performed, and manufacturing proceeded past these points. (See Details Section, paragraph B.4.a).

- B. ASME Code Section III, Subsection ND-4231.2 states in part, "Attachments which are welded to the component during construction but which are not incorporated into the final component . . . are permitted provided the following requirements . . . are met.
- (a) The material is identified and is suitable for welding but need not be certified.
 - (b) The material is compatible for welding to the component material to which it is attached.
 - (c) The welding material is compatible with the base material . . .
 - (d) The welder and welding procedure are qualified"

QA Manual Section No. 7 states in part, "All materials issued to manufacturing, shall be coded green and marked with the Shop Order Number and Heat Number. . . . The Quality Control Traveler shall indicate to manufacturing and Quality Assurance all shop operations, standard shop procedures, special requirements, welding procedures and revisions thereof. . . ."

Contrary to the above, the NRC inspector observed the following with respect to welding of temporary attachments:

1. Welding of temporary attachments is not specified on the QC Traveler; thus, there are no provisions to identify the welding material, welder, or welding procedure specification (WPS) used, in order to ascertain the compatibility of the welding material and the qualifications of the welder or WPS.
 2. Unidentified material was used for temporary attachments to provide rigidity between piping and vessel nozzles. (See Details Section, paragraph C.3.a(1)).
- C. ASME Code Section IX, Article QW-201.1 states in part, "The welding procedure specification shall list in detail the . . . variables described for each welding process as either essential or nonessential." QW-201.2 states in part, "The specific facts involved in qualifying a WPS shall be recorded in a form called Procedure Qualification Record (PQR). This form shall document the essential variables of the specific welding process or processes"

QA Manual Section No. 7, paragraph 7.4 states in part, "The Quality Assurance Manager or his designee shall review and approve the welding procedure specification form as to compliance to Section IX and other applicable sections of the ASME Code . . . (and) shall verify all data on WPS and PQR forms."

Contrary to the above, certain applicable ASME Section IX Code nonessential variables were not described in approved WPSs, e.g., WPS 31 Revision 3, a GTAW procedure, did not address orifice or cup size and oscillation, and WPS 17 Revision 3, a GTAW procedure, did not address oscillation.

In addition, the PQRs for WPS No. 2, a SMAW procedure, and No. 17, a GTAW procedure, both used for the welding of P-8 metal, did not document the addition or deletion of a solution or stabilizing heat treatment, an essential variable for both welding processes.

- D. ASME Code Section IX Article QW-201.1 states in part, ". . . Changes may be made in the nonessential variables to suit production requirements without requalification of the procedure, provided such changes are documented . . . either in an amendment to the original WPS, or a new WPS."

Contrary to the above, changes were made in certain nonessential variables without such changes being documented either in an amendment to the WPS, or a new WPS. (See Details Section, paragraph C.3.a(3)).

- E. ASME Code Section III, Subsection ND-4356 states in part, "The procedure qualifications (Special qualification requirements for tube-to-tubesheet welds) shall be made on a test assembly which stimulates (sic) the conditions to be used in production with respect to the tube hole pattern and the essential variables listed in ND-4352 through ND-4354. . . ."

Contrary to the above, PQR 17 Revision 1, which was identified as qualifying a GTAW WPS used for tube-to-tubesheet welding, i.e., WPS 17, was made as a butt weld in a 3/8" test plate and not with a test assembly simulating the conditions to be used in production.

- F. ASME Code Section III, Subsection NCA-3820(c) states in part, ". . . any party performing and certifying to an operation, process, or to the results of tests, . . . required by the material specification or by this section shall have a Quality System Program which shall cover the operations, processes, or services performed. This Quality System Program shall be surveyed and qualified by the . . . Certificate Holder who directly receives the certification of work performed except when the party holds a Quality System Certificate (Materials) which covers those operations."

QA Manual Section No. 4 states in part, "If the Quality Assurance Manager believes the vendor can furnish material or services in accordance with the code, an in-house survey shall be performed at the vendor's location. Upon approval, the vendor shall be added to the Approved Vendor's List"

Vendor shall be identified by name, address and scope of work or product . . . on the Approved Vendor's List. . . . Vendor survey and review of their Manual may be waived if the vendor has an ASME Quality System Certificate (Materials) or has the appropriate ASME "N" certificate. A copy of the certificate shall be kept in the Quality Assurance Manager's Vendor's File."

Contrary to the above, certain items requiring certified material test reports, and designated as being ASME Section III, Class 3, were procured from vendors and subsequent subtier vendors who were not on the Approved Vendor's List and who were neither ASME certificate holders nor were they surveyed or audited by Norwalk Fabricators, Inc. (NFI). (See Details Section, paragraph D.3.a.).