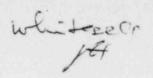


UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

MAR 8 1973



J. B. Henderson, Chief, Reactor Construction Branch, RO
THRU: G. W. Reinmuth, Chief, Technical Assistance Branch, RO
GRINNELL REPORT ON IMPROPERLY MADE TACK WELDS FOR DAVIS-BESSE PIPING (Dated January 19, 1973)

The Grinnell report suggests that qualification requirements for tack welders are not clearly defined and that untested fitters have performed tack welding in many pipe fabrication shops and on many field erection sites. (pages 2, 3, 4 and 5 of the report) It must be noted that the use of unqualified weldors for tack welding is a clear-cut violation of all nuclear construction codes. Specifically;

Paragraph 1-727.4.2(b) of USAS B 31.7-1969 - Nuclear Power Piping states: "All tack welds shall be made by a qualified weldor."

Paragraph 127.4.2 (b) of <u>USAS B 31.1.0-1967 - Power Piping</u> states: "Tack welds shall be made by qualified weldors. Tack welds made by an unqualified weldor shall be removed."

Paragraph NB-4321(b) of <u>ASME Section III (1971)</u> states: "Procedures, welders and welding operators used to join permanent or temporary attachments to pressure parts and to make permanent or temporary tack welds used in such welding shall also meet the qualification requirements of this article."

While the nondestructive testing review of the affected weld joints and post-welding qualification of the fitters provides reasonable assurance that the overall quality of these joints has not been compromised, the apparent unfamiliarity of the ITT-Grinnell Corporation with nuclear construction requirements raises a more general concern regarding the fabrication operations at that facility.

Similarly, the Grinnell report suggests (page 8) that, since the ASME code permits weldor qualification by radiography in lieu of mechanical testing of the weldment, each of the unqualified fitters could be automatically qualified by a single radiographic exposure of a weld joint for which he performed the tack weld. This rationale is also inconsistent with conventional interpretation of the ASME code

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requirements since the code makes no provisions for qualifying more than one weldor per single test joint.

Because of the above examples of questionable code interpretations, it may be advisable to conduct a comprehensive vendor inspection of the Grinnell shops.

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Ulais Potapovs

Senior Metallurgical Engineer Technical Assistance Branch, RO

Eledia tappur

cc: D. F. Knuth
R. H. Engelken
All Regional Directors