

Rhine-Schelde-Verolme Zware
Apparatenbouw b.v.
Docket No. 99900039/79-02

NOTICE OF DEVIATION

Based on the results of an NRC inspection conducted on November 5-8, 1979, 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 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." Deviations from these requirements are as follows:

- A. Paragraph 6.3.b in Chapter 6 of the QA Manual states that the Master Traveler is the controlling document for all processes applied to items, subassemblies and assemblies.

Contrary to the above, certain Master Travelers were not the controlling document for all processes, as evidenced by the failure to include the process specification revision number utilized to accomplish a given manufacturing operation, e.g. Operation T-2 on the Master Traveler for Order 30823, Suborder 61550, Piece No. 102; Operation T-10 on the Master Traveler for Order 30823, Suborder 72000, Piece 0102.

- B. Paragraph 4.2 in Chapter 4 of the QA Manual states, "The Manager Engineering has the overall responsibility for the engineering and design of nuclear items in accordance with the owner's Certified Design Specification and applicable code requirements."

Paragraph NA-4300 "Design Control" of the 1974 Edition of the ASME Code, subparagraph (b) states: "Stress Reports and the overall design shall be reviewed for compliance with the Design Specifications and this Section. Design reviews and checking shall be performed by or for the responsible design organization by individuals or groups other than those who performed the original design." Subparagraph (c) states "Reports of in-process and final design reviews shall be reviewed by management of the responsible design organizations."

Paragraph 7.4.3 of the Black Fox vessel Design Specification (Document 21A9477) requires that the detailed analyses for each component be submitted for buyer's approval in accordance with the Engineering Schedule but not less than 1 year before the vessel completion.

Contrary to the above:

- a. There was no documented evidence that RSV-A had performed design reviews of stress reports (sizing calculations), which had been prepared by another company and subsequently approved by RSV-A for the Black Fox vessels.
 - b. Detailed stress analyses of each Black Fox vessel component had neither been submitted for buyer's approval, nor had a submit-tal date been posted in the Engineering Schedule, although the completion date for the Black Fox Unit 1 vessel was estimated by RSV-A as being less than one (1) year from the date of this in-spection.
- C. Paragraph NB-2223.2 of the 1974 Edition of the ASME Code requires that material test coupons for forgings with thickness exceeding 2 - inches be taken "so that the specimens shall have their longitudinal axis at least 1/4 t of the maximum heat treated thickness from any sur-face"

Contrary to this requirement, material test coupons for the Black Fox-2 vessel steam outlet nozzle safe end forgings (4.3-in. wall thickness) were supplied by BOSCHGOTT HARDSHUTTE O. BREYER GmbH to a sketch which designates the specimen location as 3/4 inch min. from the outside surface of the forgings.