



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

OCT 2 - 1981

SSINS: 50-518
50-553

J. Blake
C-10

MEMORANDUM FOR: C. E. Murphy, Chief, Engineering Inspection Branch, ETI

FROM: A. R. Herdt, Chief, Materials and Process Section

SUBJECT: TVA PART 21 REPORT CONCERNING WELDING OF THE STEAM TUNNEL AND DRY WELL FRAME STRUCTURES FOR HARTSVILLE AND PHIPPS BEND MANUFACTURED BY ATLAS MACHINE AND IRON WORKS, GAINESVILLE, VA

Per the attached note dated September 11, 1981, Mr. E. L. Williamson and I on September 18, 1981, contacted Mr. Roger Reedy to discuss his concerns on the welding of these structures. Mr. Reedy was cooperative and advised us that he had been authorized by TVA legal to assist the NRC in any way he could. He said he was working for TVA as a consultant and was concerned about the quality of workmanship in the steam tunnel and dry well frames.

Mr. Reedy stated that he took twenty samples of the frames constructed by Atlas and all showed some welding or material failure/problem such as hydrogen cracking, lamellar tearing, slag, lack of fusion, incomplete and missing welds and, possibly use of the wrong type of material for this application. In addition, Mr. Reedy stated that some of the welds were difficult, if not impossible, to reach because the design configuration was unsatisfactory. Mr. Reedy did not think Atlas was prepared, technically, to perform this manufacture.

Mr. Reedy discussed that the Atlas weld travellers revealed many discrepancies and that the welding on the embedded frames was probably inadequate based on his examination to date. Mr. Reedy also stated that the poor welding of these structures was a "team effort". TVA should have knowledge of the inadequacy of the work done by Atlas; GE and C. F. Braun with regard to the design together with the requirements of Regulatory Guide 1.50.

Mr. Reedy stated that he had provided TVA with a report on the results of his investigation and would provide Region II with a copy.

Subsequently, I and Mr. J. Blake on September 21, 1981, contacted Mr. Tom Roberts, TVA Civil Engineer in charge of these structures, to ascertain a current schedule on weld evaluation and repairs. Mr. Roberts stated that there was a hold at Hartsville and the repairs would not commence prior to the third week in October. Mr. Roberts stated that TVA would like to meet with the NRC to discuss these structures; where they are and what needs to be done to get them back to an acceptable condition.

CONTACT: A. R. Herdt
242-5535

C10

8205120449 B20427
PDR FOIA
WHEELER82-20 PDR

C10

OCT 2 - 1981

Based on the current information, the Materials Process Section plans to inspect and follow the repair of these structures at the Chicago Bridge and Iron Works facilities, evaluate the in-place, but still accessible structures at Hartsville, and examine the partial structures being stored and examined at Phipps Bend.

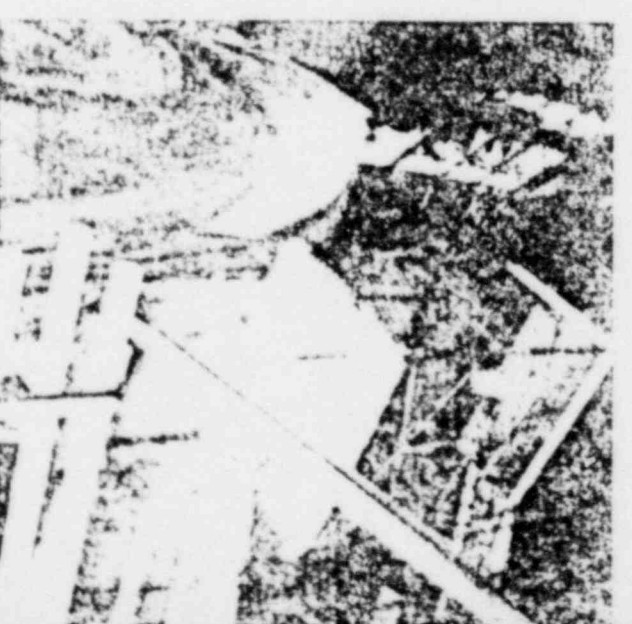
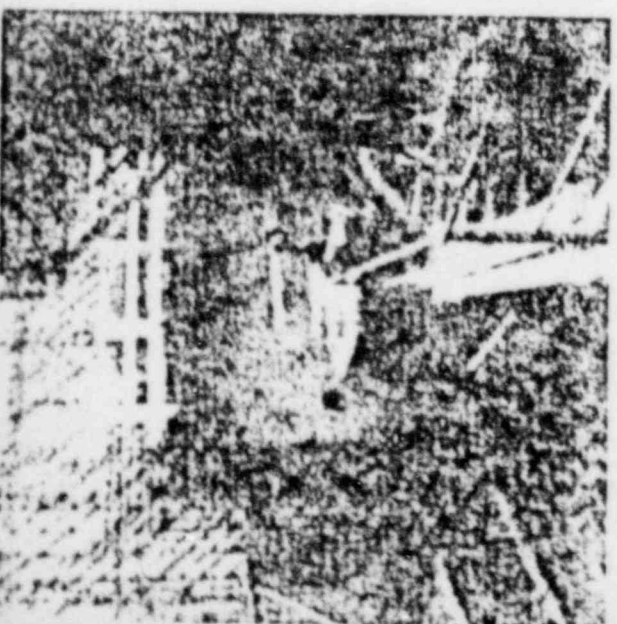
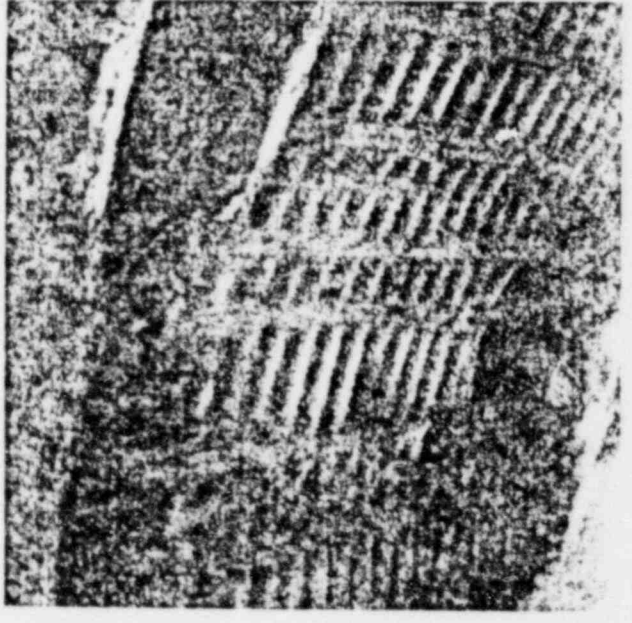
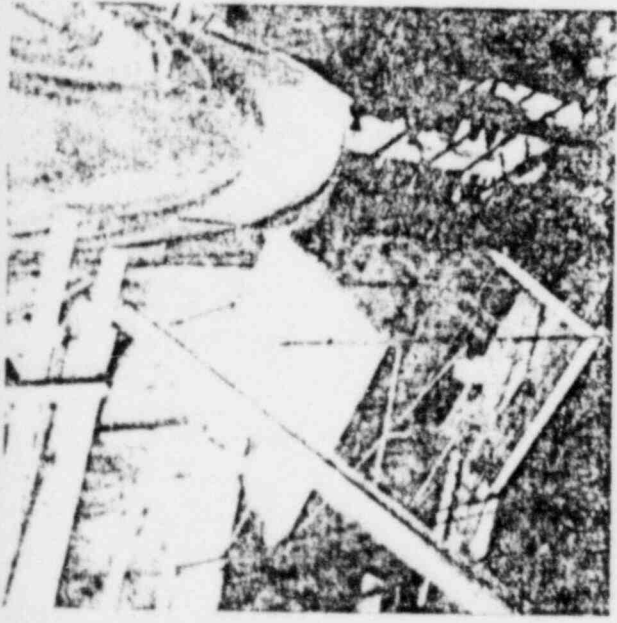
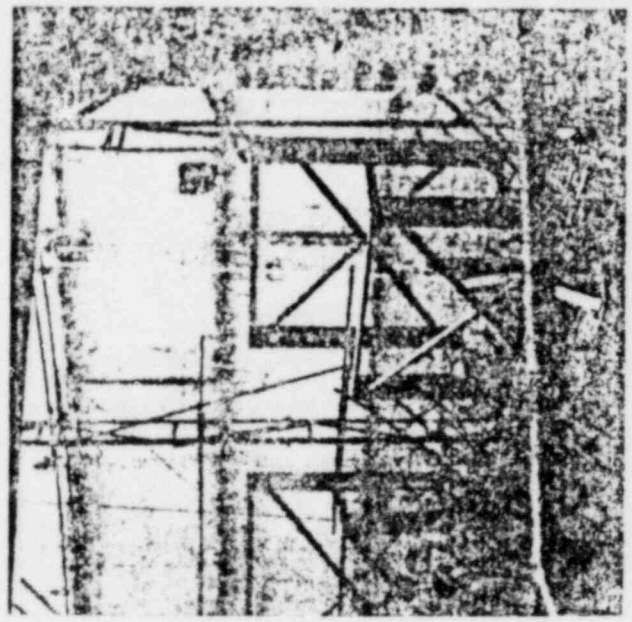
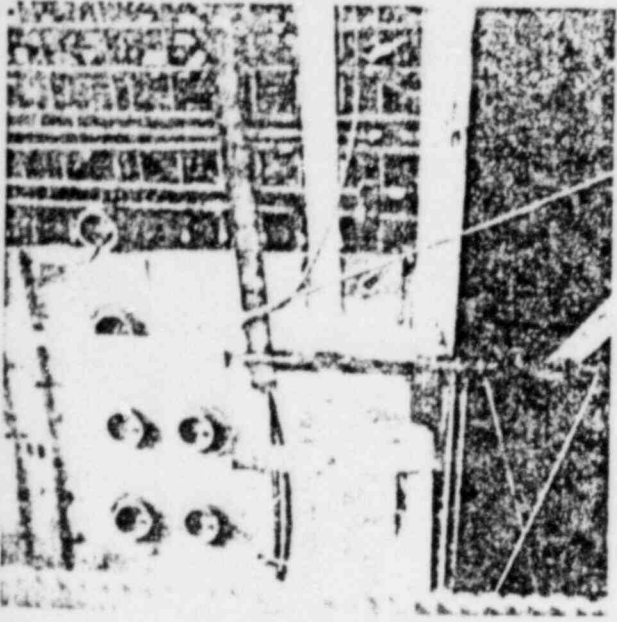
The results of these inspections will be documented in inspection reports with Region IV on distribution. It is to be noted that based on the original 10 CFR 50.55(e) report by TVA in 1980, Region IV has contacted Atlas and determined that the only nuclear contract it has is with TVA for the subject structures.



A. R. Herdt

Enclosure: As stated

C-11



C11

2

