4

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
FEB 25 1985

Docket Nos. 50-358/482

MEMORANDUM FOR: B. D. Liaw, Chief
Materials Engineering Branch
Division of Engineering

THRU: W. S. Hazelton, Section Chief
Materials Application Section
Materials Engineering Branch, DE

FROM: D. E. Smith
Materials Application Section
Materials Engineering Branch, DE

SUBJECT: DIFFERENCES BETWEEN ZIMMER AND WOLF CREEK WITH REGARD TO INSPECTIONS OF STRUCTURAL STEEL WELDS

The documentation of structural steel weldments at the Zimmer plant was only one of many areas where a general breakdown of quality control had occurred. The documentation was not adequate, leading to basic questions as to welders' qualifications, electrode control, and results of inspections. Some of the structural steel weldments had been coated prior to inspection and acceptance, contrary to AWS D 1.1. Even with coatings, some of the welds were obviously of poor workmanship and unacceptable. As a result, the applicant could not provide justification for not stripping coatings from the welds for inspections/reinspections.

The situation at Wolf Creek was significantly different. All welds had been inspected and accepted previously. Most importantly, the Quality Assurance program was functioning. The basic control of production documentation, such as welders' qualifications, and electrode control were current and accurate as demonstrated by other I&E inspections. The previous reinspections of structural steel welds, coated and uncoated, showed that the general skills and workmanship levels were good. These previous reinspection efforts were done on a sampling basis and the defects found were missing welds, undersize welds, underlength welds, and missing members. These types of defects are not related to the manipulative skills of the welder, the weld procedure, or dependent upon electrode or base metal characteristics. These types of defects are readily detected and measurable with the welds coated and were the main concern at Wolf Creek.

Contact: D. Smith
X-24553

A/18

The subsequent investigations by the applicant indicated that the vast majority of missing welds were due to misinterpretation of drawing details. Investigations concerning possible falsification of records are underway, but the few isolated incidents of missing welds with no obvious cause appear to be random in nature, principally due to human error by different individuals.

/s/

David E. Smith
Materials Application Section
Materials Engineering Branch

cc: H. R. Denton
D. G. Eisenhut
J. P. Knight
W. Johnston
D. Denise, Region IV
T. Novak
B. D. Liaw
R. Bosnak
G. Lear
W. Hazelton
C. Y. Cheng
R. Klecker
P. O'Connor
D. Smith

DISTRIBUTION:
DMB - Docket Files
MTEB Reading Files
MTEB Wolf Creek & Zimmer Files

OFC	DE:MTEB	DE:MTEB				
NAME	D.Smith:jar	W. Hazelton				
	2/25/85	2/ /85				

OFFICIAL RECORD COPY