



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEB 13 1984

Docket Nos. 50-329/330

MEMORANDUM FOR: Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing

FROM: William V. Johnston, Assistant Director
Materials, Chemical & Environmental Technology
Division of Engineering

SUBJECT: TASK INTERFACE AGREEMENT 83-78, REGION III
REQUEST FOR DESIGN ADEQUACY OF THE MIDLAND
HVAC SYSTEMS (TAC #52311)

In a previous memorandum on this subject dated January 24, 1984, mention was made of materials discrepancies, which had been identified that were not expected to cause operating problems with the HVAC system. Specifically, this referred to bolts from Midland which had been hardness tested. Of the nine (9) ASTM A307 bolts selected by Region III for testing by Franklin Research Center, four (4) exceeded the maximum hardness for ASTM A307 Grade A. Another bolt exceeded the hardness maximum for Grade B but not the hardness maximum for Grade A. However, ASTM A307 states (in 1.2) "If no grade is specified in the inquiry, contract or orders, Grade A bolts shall be furnished." As no grade was stated in the information provided, it is assumed that all bolts were Grade A so only four (4) of the nine (9) tested exceeded specification requirements. The maximum hardness found on these four bolts was Rockwell C 29.

In a telecon between W. Hazelton of MTEB and D. Danielson of Region III, it was agreed that MTEB would determine the preload necessary to merit concern for potential stress corrosion failure and Region III would perform a breakaway torque test on a selected sample of installed bolts of the same type exhibiting the high hardness.

Calculations have been performed that demonstrate that the subject bolts, although in excess of the specification requirements, would probably not be in a stress corrosion regime at Rockwell C values much below Rockwell C 35. Because the highest hardness found in the Midland sample bolts was Rockwell C 29, we conclude that torque testing of the installed bolts is not necessary.

William V. Johnston

William V. Johnston, Assistant Director
Materials, Chemical & Environmental
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cc: See Page 2

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