

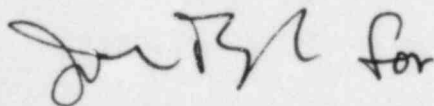

**Washington Public Power Supply System**

Box 1223 Elma Washington 98541 (206) 482-4428

January 13, 1983  
G03-83-40Mr. Duke Wheeler  
Division of Licensing - Branch 3  
Nuclear Regulatory Commission  
Mail Stop Philip 145  
7920 Norfolk Avenue  
Bethesda, Maryland 20014

Subject: BRANCH TECHNICAL POSITION MTEB-5-5

Enclosed is a copy of Branch Technical Position MTEB-5-5 which Bill Albert asked me to send you.

forO. E. Trapp (761)  
Project QA Manager, WNP-3JAV:nj

Enclosure

cc: J. Adams - NESCO  
D. Smithpeter - BPA  
Ebasco - New York  
WNP-3 Files - Richland

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BRANCH TECHNICAL POSITION MTEB 5-5  
FRACTURE TOUGHNESS REQUIREMENTS FOR  
MATERIALS APPLICATIONS ASME CODE CLASS 2 AND CLASS 3 COMPONENTS

A. Background

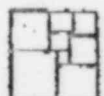
The ASME Code requires fracture toughness testing for Class 2 and Class 3 components only when stated in the Design Specification. The intention of this position is to provide for appropriate mandatory minimum fracture toughness requirements for all ferritic materials of pressure retaining Class 2 and Class 3 systems.

B. Definitions

1. "Code" refers to the 1974 Edition of the ASME Boiler and Pressure Vessel Code, Section III.
2. "Passive" pressure retaining components are vessels, tanks, piping, tubes, pumps, valves and fittings not part of an active reactor system required for normal operating, including startup and shutdown, but are on standby, and maintain a constant pressure at all times; such that when called upon to perform their safety-related function there is no increase in pressure stress or thermal stress.

C. Branch Technical Position

1. All Code Class 2 and Class 3 component pressure retaining materials except those described in paragraphs NC/ND-2311(b), (1) through (7) shall be tested for fracture toughness according to the procedures, requirements and acceptance standards of NC/ND-2320 through NC/ND-2360. For materials with thickness exceeding 2-1/2 inch, except those covered by C.2 below, the lowest service temperature as described in paragraphs NC/ND-2332(d) shall not be lower than  $RT_{NDT} + 100^{\circ}F$  unless a lower temperature is justified by methods similar to those contained in Appendix G.
2. Code Class 2 and Class 3 passive pressure retaining components as defined in B.2. above with wall thickness exceeding 2-1/2 inch as described in NC/ND-2332 may meet the following requirement. The lowest service temperature shall not be lower than  $RT_{NDT} + 30^{\circ}F$  unless a lower temperature is justified by methods similar to those contained in Appendix G as stated in NC/ND-2332(d) rather than the  $RT_{NDT} + 100^{\circ}F$  required above, provided



that the shop hydrotest required by paragraph NC/ND-6221(a) shall be conducted at or below the lowest service temperature as defined in NC/ND-2331(a).