



U.S. C. AEA-ORNL

ARGONNE NATIONAL LABORATORY

April 7, 1970

Mr. John E. McEwen
Assistant to the Division Director
Division of Reactor Standard (Bethesda)
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. McEwen:

Enclosed please find two attachments that are pertinent to the forthcoming meeting on the intergranular cracking of core spray safe-end in Nine Mile Point Reactor.

The first attachment is a paper, "Intergranular Corrosion Cracking of Type 304 Stainless Steel in Water-Cooled Reactors." This paper reviews published literature with respect to:

- (a) numerous instances of intergranular corrosion cracking of Type 304 stainless steel in water-cooled reactors
- (b) the various corrosion studies on intergranular cracking
- (c) the proposed mechanism on intergranular corrosion cracking

The second attachment is a memorandum, "Information Needed on Intergranular Corrosion Cracking." This memorandum reviews

- (a) recent reactor component failures and safe-end status of water-cooled reactors reported by your Division of Compliance
- (b) mechanical properties needed to evaluate intergranular corrosion cracking aided by low-cycle and/or static stresses

Sincerely,

Craig F. Cheng
Craig F. Cheng
Materials Science Division

CFC:1/gh

Encl: Attachments A and B
(3 copies)

cc: J. O'Rieley, Division of Compliance
(2 copies)



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