

August 7, 1980

1 00

Mr. James G. Keppler, Director Office of Inspection & Enforcement, Region III U. S. NUCLEAR REGULATORY COMMISSION 799 Roosevelt Road Glen Ellyn, Illinois 6C137

Dear Mr. Keppler:

## DOCKET NOS. 50-266 AND 50-301 IE BULLETIN 79-03A LONGITUDINAL WELD DEFECTS IN ASME SA-312 STAINLESS STEEL PIPE POINT BEACH NUCLEAR PLANT UNITS 1 AND 2

As a follow-up to IE Bulletin No. 79-03, the NRC issued IE Bulletin No. 79-03A dated April 4, 1980 concerning the use of ASME SA-312 or A-312 fusion welded stainless steel pipe in safety-related systems. Bulletin 79-03 addressed only fusion welded stainless steel pipe manufactured by Youngstown Welding and Engineering Company. The 79-03A revision to the bulletin expanded this investigation to fusion welded stainless steel pipe fabricated by any manufacturer. The bulletin required all licensees to determine whether any SA-312 or A-312 Type 300 Series fusion welded pipe is in use in safety-related systems subjected to design stresses greater than 85 percent of the Code allowable stresses. For the purposes of the bulletin, the actual wall thickness of the piping was to be considered adequate if the code requirements for pressure design of the piping product are satisfied using 85 percent of the maximum allowable stress at the design temperature.

As you are aware, as part of our response to IE Bulletin 79-14, concerning seismic analysis for as-built safety-related piping, we are presently completing pipe line stress analyses and piping support analyses for the as-built safety-related piping at the Point Beach Nuclear Plant. Our letter to you dated June 9, 1980, provided our most recent update on our 79-14 evaluations. In response to Bulletin 79-03A, we are reviewing these pipe line stress analyses for all safety-related systems which specified A-312 or SA-312 piping to determine whether the maximum computed stress for the design pressure of the piping system exceeds 85 percent of the maximum allowable stress at the design temperature. Alchough the 79-14 pipe stress analysis program is still being completed, we have not identified any application of A-312 or SA-312 series 300 piping in which the code requirements for pressure design exceed 85 percent of the maximum allowable stress.

0

Mr. James G. Keppler

August 7, 1980

If our review of subsequent pipe stress analyses reveals a situation where this 85 percent limit is exceeded, we would consult the plant quality assurance documentation to determine whether the particular application of A-312 or SA-312 piping utilized seamless or fusion welded pipe. If we find that welded stainless steel pipe was used in such an application, we will notify you of the specific application, pipe location, size, and design requirements as requested by the Bulletin. However, in light of the reviews completed to date, we consider it unlikely that such applications will be identified in the pipe stress analyses remaining to be completed.

-2-

We would also like to call your attention to a recent report prepared for the Electric Power Research Institute (EPRI) by APTECH Engineering Services dated May 1980 concerning the significance of centerline lack-of-penetration (CLP) defects in seam welded SA-312 piping. EPRI contracted with APTECH to assess this problem and to define a strategy for evaluation shortly after Bulletin 79-03 was released. This report concludes that although there are difficulties with NDE methods in detecting CLP, a significant safety margin and residual fatigue life still exists even when worst case conditions are assumed. This draft final report has been submitted to EPRI. We anticipated that it will be published soon and may provide additional insight into the NRC investigation of this situation.

Very truly yours,

C.W. Fay

C. W. Fay, Director Nuclear Power Department

Copies to: Office of Inspection & Enforcement U. S. Nuclear Regulatory Commission Washington, D. C. 20555

> NRC Resident Inspector Point Beach Nuclear Plant