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Regulatory Docket File

August 13, 1976

Mr. Dennis L. Ziemann, Chief
Operating Reactors - Branch 2
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Dresden Station Unit 3
Quad-Cities Station Unit 2
Proposed Inspection Program for
Feedwater Nozzle Inspection
NRC Docket Nos. 50-249 and 50-265

References (a): G. A. Abrell Letter to D. L. Ziemann
dated May 12, 1976, NRC Docket Nos.
50-237, 50-249, 50-254, and 50-265

(b): G. A. Abrell Letter to D. L. Ziemann
dated July 9, 1976, NRC Docket No. 50-249

Dear Mr. Ziemann:

At the August 5, 1976 meeting between representatives of Commonwealth Edison Company and the NRC staff, Commonwealth Edison agreed to provide the acceptance criteria for the ultrasonic test program described in Reference (b). The acceptance criteria for the program is described herein.

During the outages for Dresden Unit 3 and Quad-Cities Unit 2 scheduled for September 1976, it is planned to use the ultrasonic procedure NDT-C-24 for examination of the feedwater nozzle inner radii. This procedure is based on the so-called "Gatti method" with several modifications. It also reflects the work done in Italy at Breda Termomeccanica on May 18, 1976, by our Mr. E. E. Potter and reported to the NRC by References (a) and (b).

In the performance of the nozzle inner radius testing, the identical calibration block will be used for the inner radius tests made at Breda on May 18. The Breda tests showed that notches at both the vessel-to-inner-radius tangent (I.R.T.) and the nozzle-to-I.R.T. could be detected even though the notches just barely



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broke through the clad into base metal. The cladding at the vessel-to-I.R.T. was somewhat thinner than at the nozzle-to-I.R.T., so the notch at the former location was only seven mm deep as compared to nine mm deep at the latter site. However, neither notch extended into the base metal by more than 0.1 mm. When calibrated on the Breda block, the seven mm notch gave a CRT indication of between 70 and 80 percent of screen height while the nine mm notch had an amplitude of 80 to 85 percent of screen height.

Based on the Breda results, 80 percent of screen height at scanning level will be the reject level; thus, if an indication of 80 percent or more is found on any of the nozzle tests, the reactor water level will be lowered and penetrant tests will be made of the area of the inner radius containing the source of the indication. Any indication that is 10 percent of screen height above the clad noise (which itself reaches a maximum of 40 percent screen height) but is less than 80 percent will be recorded for comparison with future test results on the same nozzles.

Please direct any additional questions on this matter to this office.

One (1) signed original and 39 copies are provided for your use.

Very truly yours,



G. A. Abrell
Nuclear Licensing Administrator
Boiling Water Reactors