



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

March 11, 1992

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Quad Cities Nuclear Power Station Unit 2
Deferral of IGSCC Inspection Plan Welds
from the Winter 1992 Refueling Outage (Q2R11)
NRC Docket No. 50-265

Reference: Conference call between CEC Co (J. Schrage, et. al.)
and NRR (D. Lynch, et. al.) on March 5, 1992

Dr. Murley:

As discussed with your Staff during the referenced teleconference, Commonwealth Edison Company (CECo) is requesting to defer the scheduled ultrasonic examination of two (2) Unit 2 welds (28" Recirculation System welds) during the unit's current refueling outage (Q2R11). These examinations are part of the inspection program for piping susceptible to intergranular stress corrosion cracking (IGSCC). The two (2) cast stainless steel elbow-to-cast stainless steel pump body welds (weld 02AS-S15 on Recirculation Loop 'A'; weld 02BS-S15 on Recirculation Loop 'B') are currently classified as Category 'G' welds in the IGSCC program. This deferral request is based on the current accessibility and configuration of the welds.

A large whip restraint (cable-tray design whip restraint) is located on each weld, with the tray of the restraint encompassing the weld surface. Removal of the restraint for inspection purposes necessitates cutting of the bolts holding the whip restraint. Reinstallation would require replacement of the bolts. Based on the current working dose rate at the elbows (approximately 0.2 rem/hour), it is estimated that in excess of 6.4 person-rem would be expended for the removal (and reinstallation) of each whip restraint.

Once the welds are accessible for inspection purposes, the current configuration (outside surface contour) of each weld is not conducive to obtaining a meaningful examination. The contour of each weld is shown in Figures 1 (weld 02AS-S15) and 2 (weld 02BS-S15). As shown in the Figures, the weld crown is located in the middle of a trough approximately four inches wide. This configuration is too restrictive for proper placement and movement of the transducer search unit(s) to obtain sufficient weld coverage. In order to obtain a meaningful examination, machining of elbow material would be required, which would result in an additional radiation exposure for each weld. Machining on the elbow would also necessitate detailed evaluations to ensure structural integrity is maintained. In addition to the configuration considerations, CEC Co does not currently possess a calibration block for this weld application which meets the requirements of ASME Section XI.

AEC 1/1

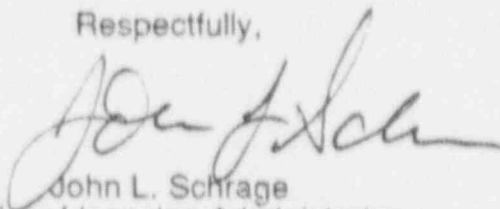
March 11, 1992

For each weld, CECo has obtained ferrite measurements (presented in the Figures) for the elbow, weld, and pump casing. The high value of the measured ferrite numbers indicate that the welds should be resistant to IGSCC. In addition, CECo has implemented the use of Hydrogen Water Chemistry (HWC) during power operation at Quad Cities Station Unit 2. The use of this system during power operation further minimizes the susceptibility of the welds to IGSCC. The combination of high ferrite measurements, and the use of HWC during power operation provides assurance that the deferral of the inspection for one refuel outage poses no safety concern.

As discussed with your Staff in the referenced teleconference, CECo is pursuing an evaluation to justify the reclassification of these welds to Category 'A' in the IGSCC program. The results of that evaluation will be submitted for Staff review.

CECo appreciates the Staff consideration of this deferral request. Please contact this office should further information be required.

Respectfully,



John L. Schrage
Nuclear Licensing Administrator

Figure 1: Diagram of Weld 02AS-S15

Figure 2: Diagram of Weld 02BS-S15

cc: A. Bert Davis, Regional Administrator, Region III
L.N. Olshan, NRR Project Manager-Quad Cities
D. Lynch, Project Manager-Quad Cities
T.E. Taylor, Senior Resident Inspector-Quad Cities

FIGURE 1
QUAD CITIES STATION
DIAGRAM OF WELD 02AS-S15

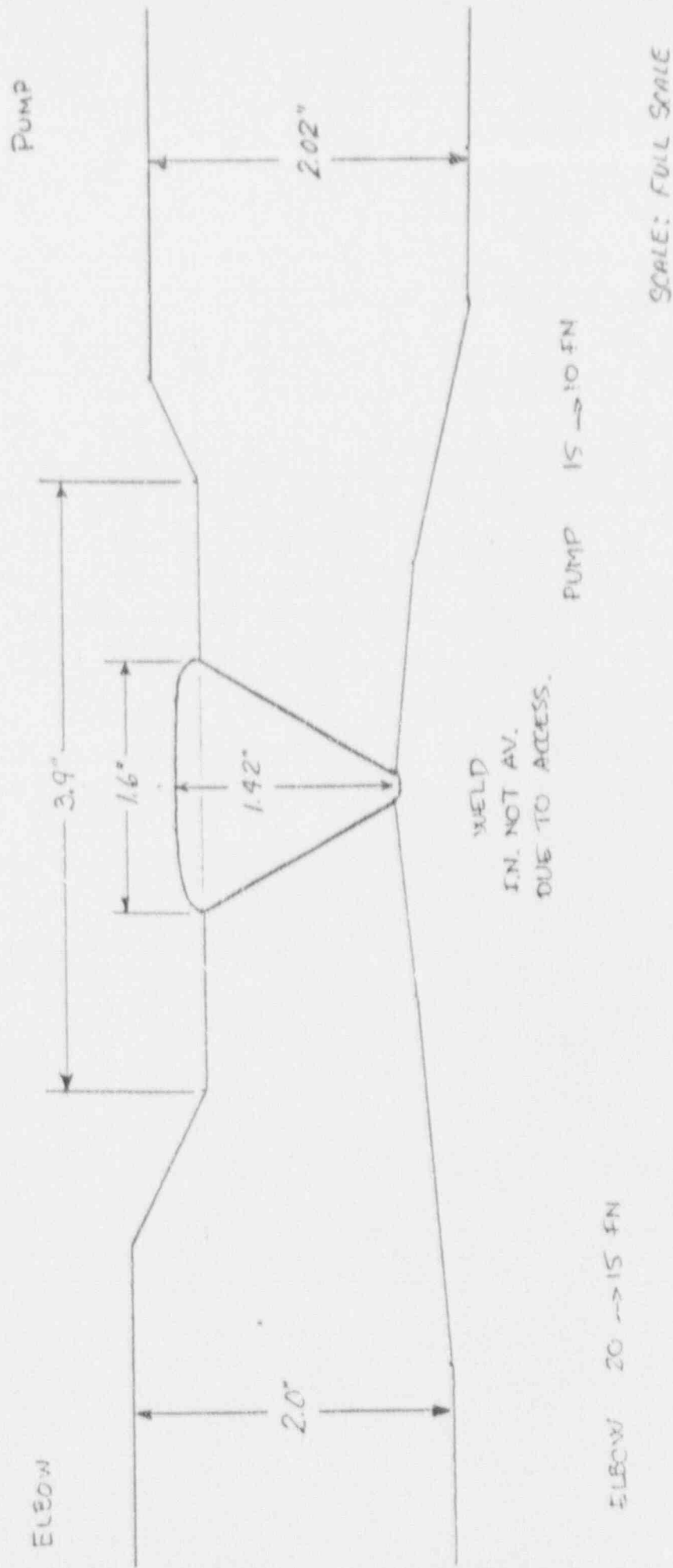
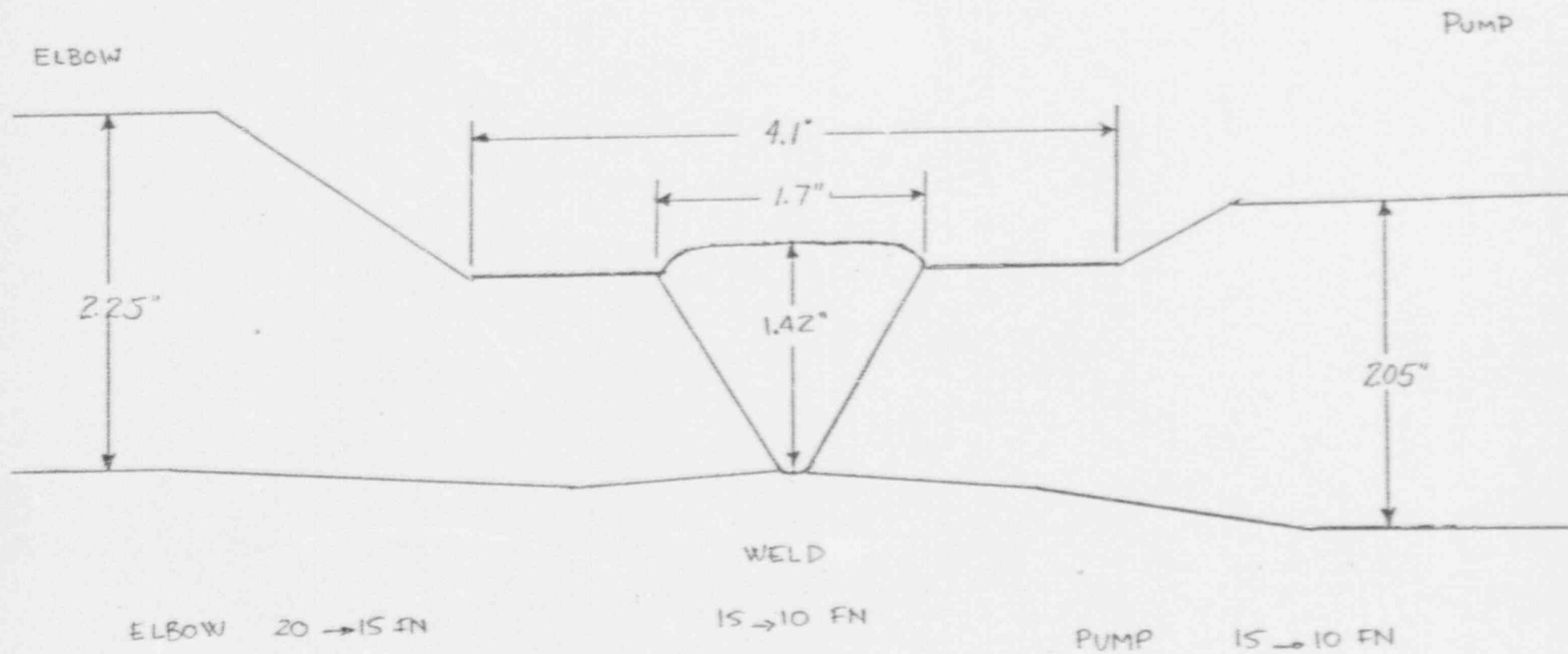


FIGURE 2
QUAD CITIES STATION
DIAGRAM OF WELD 02BS-S15



SCALE: FULL SCALE