



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

January 3, 1991

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

Attn: Document Control Desk

Subject: Quad Cities Nuclear Power Station Units 1 and 2
Dresden Nuclear Power Station Units 2 and 3
LaSalle Nuclear Power Station Units 1 and 2
Reactor Vessel Fabrication History Summary
NRC Docket Nos. 50-254/265; 50-237/249; 50-373/374

- Reference: a) L.N. Olshan to T.J. Kovach letter
dated April 27, 1990
- b) R. Stols to T.E. Murley letter
dated May 4, 1990
- c) R. Stols to T.E. Murley letter
dated July 2, 1990

Dr. Murley:

On April 19, 1990 members of the Nuclear Reactor Regulation's (NRR) and Commonwealth Edison Company's staffs conducted a technical meeting concerning the cracks, which were identified in the Quad Cities Unit 2 reactor vessel head. During that meeting, Commonwealth Edison described a number of actions, which would be performed for all of our Boiling Water Reactors, as a result of the identified Quad Cities Unit 2 vessel head cracks. Reference (a) requested that Commonwealth Edison provide a schedule for submitting information associated with our investigation.

In reference (b), Commonwealth Edison committed to provide a fabrication review summary for each of our Boiling Water Reactor Vessels. The attached provides the fabrication history for Dresden Units 2 and 3 (Attachments A and B), LaSalle Units 1 and 2 (Attachments C and D), and Quad Cities Units 1 and 2 (Attachments E and F). Figures A through F provide graphic summaries of the fabrication history. Where a major mismatch is indicated on the figure, the amount shown on the figure is the maximum mismatch condition.

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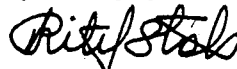
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As indicated in reference (c), Commonwealth Edison limited the review of the fabrication records to those which provide the information of interest. The attached fabrication summaries are, therefore, based on General Electric Reactor Pressure Vessel Quality Control Checklists (except for LaSalle Unit 2), Contract Variations, Variation Notices, Manufacturing Deviation Reports, Deviations Reports and Requests for Acceptance of Nonconformity as a Deviation. A General Electric Pressure Vessel Quality Control Checklist was not generated for the LaSalle Unit 2 Project. These documents were screened for information which related to major mismatches and repairs, dimensional variations and cladding variations. This record review encompassed the entire reactor vessel.

If there are any questions or comments, please direct them to me at (708) 515-7283.

Very truly yours,



R. Stols

Nuclear Licensing Administrator

Attachments: A) Dresden Unit 2 Fabrication Summary
B) Dresden Unit 3 Fabrication Summary
C) LaSalle Unit 1 Fabrication Summary
D) LaSalle Unit 2 Fabrication Summary
E) Quad Cities Unit 1 Fabrication Summary
F) Quad Cities Unit 2 Fabrication Summary

Figures: A) Dresden Unit 2 Fabrication Summary
B) Dresden Unit 3 Fabrication Summary
C) LaSalle Unit 1 Fabrication Summary
D) LaSalle Unit 2 Fabrication Summary
E) Quad Cities Unit 1 Fabrication Summary
F) Quad Cities Unit 2 Fabrication Summary

cc: A. Bert Davis-Regional Administrator, RIII
L.N. Olshan-Project Manager, NRR
B.L. Siegel-Project Manager, NRR
R.M. Pulsifer-Project Manager, NRR
B. Elliot-Technical Staff, NRR
T. Taylor-Senior Resident Inspector, Quad Cities
D. Hills-Senior Resident Inspector, Dresden
T. Tongue-Senior Resident Inspector, LaSalle

ATTACHMENT A

DRESDEN UNIT 2

The Dresden Unit 2 reactor vessel was fabricated entirely by Babcock and Wilcox. The fabrication summary was based on the review of the General Electric Quality Control Checklist, Contract Variations and Variation Notices. These sources provided the information of interest. A listing of Contract Variations and Variation Notices is attached.

A number of fabrication variations, which included base metal repairs, dimensional variations, lack of control of formed sections, mismatches at butt welds, and process control violations, were noted. These variations were reviewed and properly dispositioned by General Electric.

Major mismatches for the Dresden 2 reactor vessel were identified at the following weld locations: (a) upper head torus-to-flange, (b) upper shell-to-flange, (c) lower shell-to-lower head, and (d) lower dome-to-lower head torus. The General Electric Reactor Pressure Vessel Quality Control Checklist indicates that backcladding of the upper head torus-to-flange, upper shell-to-flange, and lower shell-to-lower head welds was performed by manual shielded metal arc welding. The Checklist indicates that the entire bottom head was clad by submerged arc welding; however, the Contract Variation for the lower dome-to-lower head torus mismatch indicates that backcladding was a combination of submerged arc and manual shielded metal arc welding.