



Commonwealth Edison

One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

August 10, 1983

Mr. R. L. Spessard, Director
Division of Engineering - Region III
U.S. Nuclear Regulatory Commission
Glen Ellyn, IL 60137

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2
Response to IE Inspection Reports
50-237/83-06, 50-249/83-05,
50-254/83-04 and 50-265/83-04
SRVDL Analysis
NRC Docket Nos. 50-237, 50-249,
50-254 and 50-265

Reference (a): Letter from R.L. Spessard to Cordell
Reed dated April 5, 1983

Dear Mr. Spessard:

The purpose of this letter is to respond to the subject unresolved matters. Paragraph 6 of the referenced letter is addressed as two sub-paragraphs. Item #1, below, addresses the first sub-paragraph and Item #2 addresses the second.

Item #1: Mark I SRVDL Analysis - Quad Cities and Dresden - "The only portion of the Safety Relief Valve Discharge Lines (SRVDL) still requiring analysis starts at the drywell/vent line jet deflector and ends at the suppression pool T-quencher. A typical jet deflector-to-T-quencher SRVDL model has been developed for both Quad Cities and Dresden."

Clarification: Sargent & Lundy (S&L) has developed a jet deflector-to-T-quencher SRVDL model for all SRVDL's at Dresden Station and another model has been developed for the Quad Cities Station. S&L's review of the design drawings has shown all SRVDL's from the jet deflector to the T-quencher for both units at each station are similar in routing and support locations. This similarity resulted in the development of a "typical" model governing all lines for each station.

Item #2: Discussion on NUREG-0661 Interpretation for SRV DL Analysis - "Nutech identified the following . . . as NUREG-0661 interpretations for Sargent & Lundy analysis: Assumption that Mark I program covers only wetwell piping."

"S&L is aware that the item (above) is an interpretation or exception to NUREG-0661, but S&L will defend this. S&L agreed to prepare Mark I position papers for Commonwealth Edison Company regarding the interpretation."

Clarification: The SRV DL penetration through the vent line shell forms the boundary between the suppression chamber (wetwell) SRV piping and the drywell SRV Piping. However, since this penetration cannot be modeled as an infinitely rigid anchor, a portion of the drywell piping is included in the wetwell analytical model. This is required to determine the loads and stresses on the drywell side of the penetration.

The drywell portion of the system inside the vent line includes two pipe guides (Dresden) and one pipe guide and one rigid strut (Quad Cities), and terminates near the jet deflector at the drywell/vent line intersection. At this "cut-point," spring constants are used in the model to represent the stiffness of the remainder of the drywell system. By overlapping the wetwell model into the drywell in this manner, the effects of drywell piping on the wetwell system (and vice versa) are included.

The results of the S&L analysis show the response of the piping system at the jet deflector "cut-point" is negligible due to hydrodynamic loads on the wetwell piping. The two vent line supports serve to effectively isolate the remainder of the drywell piping system from the wetwell piping.

Based on the above points, we consider the SRV DL analysis performed by S&L to be in agreement with the NUREG-0661, requirements, and that the Sargent & Lundy position is not to be considered an exception to or deviation from NUREG-0661.

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R. L. Spessard

- 3 -

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Please address any questions you may have concerning this matter to this office.

Sincerely,

F. B. Lentini

for Bob Rybak
Nuclear Licensing Administrator

DSS/BR/rr/lm

cc: Mr. D.H. Danielson, Region III
I. T. Yin, Region III
R. Gilbert - NRR
NRC Resident Inspector - Dresden
NRC Resident Inspector - Quad Cities

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