

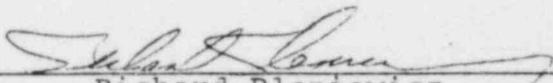
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

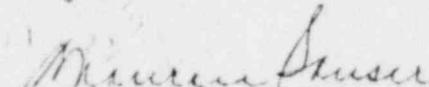
In The Matter of)
)
)
COMMONWEALTH EDISON COMPANY) Docket Nos. 50-454 0L
) 50-455 0L
)
(Byron Nuclear Power Station,)
Units 1 & 2))

AFFIDAVIT OF RICHARD PLENIEWICZ

The attached questions and answers constitute my testimony in the above-captioned proceeding. The testimony is true and accurate to the best of my knowledge, information and belief.


Richard Pleniewicz

Subscribed and sworn to
before me this 4th day
of June, 1982.


Notary Public

TESTIMONY OF RICHARD PLENIEWICZ

ON DAARE/SAFE CONTENTION 9a

Q. Please state your name, present occupation, and present position.

A. My name is Richard Pleniewicz. I am employed by Commonwealth Edison Company as Assistant Superintendent of Operations at the Byron Nuclear Power Station near Byron, Illinois.

Q. Briefly state your educational and professional qualifications.

A. I have a Bachelor's Degree in Electrical Engineering from the University of Illinois at Champaign-Urbana. I also received a Senior Reactor Operator's License for Zion Station Units 1 and 2 in July, 1976. My work experience prior to joining Commonwealth Edison includes 6 years in the United States Navy. As the result of my training I became a Qualified Reactor Operator in 1966. I joined Commonwealth Edison in February, 1973 as a Technical Staff Engineer at Zion Station. I was an active member of the pre-operational and startup test group. In that capacity I was involved in core physics testing and plant-wide transient testing. In September, 1974, I became the Electrical Group Leader. After receiving my Senior Reactor Operator's License, I was appointed to the position of Shift Foreman at Zion Station. In May, 1977, I was promoted to Operating

Engineer at the Byron Station. In August, 1980, I was promoted to Assistant Superintendent of Operations at the Byron Station.

Q. Describe your duties and responsibilities as Assistant Superintendent of Operations.

A. As Assistant Superintendent of Operations, my basic function is to manage the Station's Operating Department. This entails ensuring that the plant is operated in a safe, efficient and professional manner in accordance with State and Federal regulations, permits and licenses. It also includes providing direction to the Shift Engineer for safe and reliable operation of the plant and to develop and implement operating instruction, procedures and policies. I am also a member of the On-Site Review Committee which is responsible for reviewing plant operating procedures and test results.

Q. To which contention is this testimony addressed?

A. DAARE/SAFE Contention 9a.

Q. Have you reviewed the Affidavit of Robert Carlson pertaining to Contention 9a?

A. Yes, I have.

Q. As Assistant Superintendent of Operations will you be responsible for writing the procedures associated with the operation of the feedwater bypass system described in Mr. Carlson's Affidavit?

A. Yes, that will be one of my responsibilities.

Q. have you been provided with the general feedwater bypass system operating procedures for the Byron Station steam generators prepared by Westinghouse Electric Corporation?

A. Yes, I have.

Q. Will the Byron Station operating procedures pertaining to operation of the feedwater bypass system implement the Westinghouse recommendations contained in the general operating procedures provided by Westinghouse referred to in the previous question and answer?

A. Yes, that is our present intent.

Q. Will there be any additional testing of the feedwater bypass system prior to full power operation?

A. Yes. Commonwealth Edison has committed to conduct verification tests to assure that no damaging waterhammer will occur in the steam generator and/or the feedwater systems. The plant will run at approximately 25% of full power using feedwater from the top feedwater nozzle at the lowest feedwater temperature permitted by standard plant operating procedures. Feedwater delivery will then be transferred to the main feedwater nozzle using the standard plant operating procedures. The system will be observed for waterhammer and the results recorded and evaluated.

CONTENTION 9 (b)

Intervenors contend that there are many unresolved safety problems with clear health and safety implications and which are demonstrably applicable to the Byron Station design, but are not dealt with adequately in the FSAR. These issues include but are not limited to:

- b. Asymmetric blowdown loads on reactor primary coolant system. This problem may develop from reactor coolant pipe rupture at the vessel nozzle. The result, after a LOCA incident, could be to place a significant load on the reactor vessel supports, which, in the extreme, could cause their failure. This, in turn, might damage the ECCS lines and/or prevent proper functioning of the control rods. This problem is particularly severe in PWRs. Applicant's response to this problem, a computer model of stresses at FSAR 3.9.1.4.6, is insufficient, and a full scale mechanical test is necessary, especially given the complexity of the reactor vessel geometry.

MATERIAL FACTS AS TO WHICH THERE IS NO
GENUINE ISSUE TO BE HEARD

1. The asymmetric blowdown load phenomenon has been studied by the NRC, their consultants and industry over the last several years. (Bogard Affidavit, p. 12.)
2. This study has resulted in a thorough understanding of the asymmetric blowdown load phenomenon. (Bogard Affidavit, p. 4-6, 12.)
3. Sophisticated analytical methods have been developed to conservatively represent asymmetric blowdown loads in terms of their physical interaction with the reactor vessel support system. (Bogard Affidavit, p. 8-11, 12.)

4. The finite element model and dynamic analysis used in the design of the Byron Station to account for the asymmetric blowdown loads is typical of state-of-the-art engineering evaluations. (Bogard Affidavit, p. 11.)
5. The analytical methods utilized in the Byron Station design process have been verified and checked using alternate calculational techniques. (Bogard Affidavit, p. 12.)
6. Due to the analysis performed, it is not necessary to utilize full-scale mechanical tests to assure that the loads and stresses have been adequately analyzed. (Bogard Affidavit, p. 11-12.)
7. The NRC Staff has published an acceptable basis for performing analyses of asymmetric blowdown loads in NUREG-0609, "Asymmetric Blowdown Loads on PWR Primary Systems," and no longer treats the phenomenon as an "unresolved safety issue". (Bogard Affidavit, p. 8; see also Byron SER, Appendix C, p. C-5.)
8. The analysis of asymmetric blowdown loads for the Byron Station was performed consistent with NUREG-0609 and has been accepted for the Byron Station by the NRC Staff. (Bogard Affidavit, p. 8; see also Byron SER, §3.9.2.4.)
9. The Byron Station reactor vessel supports have been designed for the asymmetric blowdown loads and stress

limits are within ASME Boiler and Pressure Vessel Code allowables as endorsed and amended by NRC Regulatory Guides 1.124 and 1.130. (Netzel Affidavit, p. 1.)

10. The Byron plant is adequately designed to withstand asymmetric blowdown loads. (Bogard Affidavit, p. 13.)

DISCUSSION

At the time DAARE/SAFE Contention 9(b) was admitted as an issue by the Board, the phenomenon of asymmetric blowdown loads was considered by the NRC Staff to be an "unresolved safety issue." The Board's order of December 19, 1980, admitting this DAARE/SAFE Contention, incorporated by reference the Board's discussion of generic safety issues in its Memorandum and Order of the same date, a ruling on admissibility of Revised Contentions of the Intervenors, League of Women Voters. The Board clearly contemplated that the nexus required by the Appeal Board's decision in Gulf States Utilities Co. (River Bend Station, Units 1 and 2) ALAB-444, 6 NRC 760 (1977), should be supplied by DAARE and SAFE after the publication of the Staff's SER for the Byron Station.

The Staff's SER has been published, and the Staff has concluded that the analysis (including analysis of asymmetric blowdown loads) to confirm structural adequacy of the reactor internals and the reactor coolant pressure boundary, including supports, for the Byron Station is acceptable and

meets the relevants regulatory requirements. (SER §3.9.2.4.)
DAARE and SAFE have made no effort since the publication of
the Staff's Safety Evaluation Report to provide any additional
basis or nexus for Contention 9(b). In response to discov-
ery, they have stated they do not intend to sponsor expert
testimony on this Contention. The above-listed and adequately
supported facts are not disputed and demonstrate that
Applicant is entitled as a matter of law to a favorable
decision on this Contention.