

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)	
)	
PENNSYLVANIA POWER & LIGHT)	
COMPANY)	
)	
AND)	Docket Nos. 50-387
)	50-388
)	
ALLEGHENY ELECTRIC COOPERATIVE,)	
INC.)	
)	
(Susquehanna Steam Electric)	
Station, Units 1 and 2))	

AFFIDAVIT OF WALTER J. RHOADES

County of Lehigh)
) ss:
Commonwealth of Pennsylvania)

Walter J. Rhoades, being duly sworn according to law, deposes and says as follows:

1. I am Nuclear Group Supervisor Mechanical, Nuclear Plant Engineering Department, Pennsylvania Power & Light Company. A summary of my professional qualifications has previously been included in the record of this proceeding following Tr. 1938. I have personal knowledge of the matters set forth herein and believe them to be true and correct.

2. During the evidentiary hearing before the Atomic Safety and Licensing Board in this proceeding, I testified concerning

the steps which Applicants have undertaken to mitigate the effects of Intergranular Stress Corrosion Cracking at Susquehanna. Part of that testimony cited to the continuous on-line leak detection system.

3. In response to a question from the Licensing Board to describe how the leak detection system works, I gave the following response:

Essentially the detection system works by accumulating leakage in a certain area, and once the leakage -- the unidentified leakage increases by more than one gpm per hour in any given hour, or the unidentified leakage of five gpm in a 24-hour period increases beyond the background leakage, then the plant is by technical specifications shut down, and we go in to perform inspections for any leakage that may have occurred to ascertain what the unidentified leakage is.

Tr. 1940-41.

4. My oral response concerning the one gpm per hour unidentified leak rate change was and is in error. My answer to the Licensing Board's question should have made three points:

- a. The leak detection system is capable of detecting leakages of 1 gpm per hour;
- b. The technical specifications will require plant shutdown for unidentified leakage of 5 gpm; and
- c. The technical specifications will require plant shutdown if unidentified leakage increases by 2 gpm or more in a four-hour period.

5. The first point is consistent with the FSAR §5.2.5 and Applicants' design of the leak detection system. That system is described in detail in the cited FSAR section. The latter two points are consistent with the Staff's recommendations in NUREG-0313, Rev. 1, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping" (July 1980), p. 8. Applicants had previously gone on record as stating that the leak detection system conforms to the requirements of NUREG-0313. See letter from Calhoun to Schwencer, dated September 15, 1981, following Tr. 1935, and my testimony to the Licensing Board, para. 4, following Tr. 1939.

6. The Technical Specifications for Susquehanna do not presently include a limit on increases in unidentified leak rate. They do, however, provide the following limitations:

3.4.3.2. Reactor coolant system leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE.
- b. 5 gpm UNIDENTIFIED LEAKAGE.
- c. 25 gpm total leakage averaged over any 24-hour period.
- d. 1 gpm leakage at a reactor coolant system pressure of 1000 ± 10 psig from any reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1.

In order to be consistent with NUREG-0313, Rev. 1, these technical specifications should contain an additional technical specification limiting the increase in unidentified reactor coolant

system leakage to 2 gpm within a four-hour period. Applicants are currently preparing the documentation to amend the technical specifications accordingly. An appropriate application will be submitted after required internal reviews have been completed.

Walter J. Rhoades
Walter J. Rhoades

Sworn to and subscribed
before me this 1st day
of November, 1982.

Martha C. Barto

NOTARY PUBLIC

MARTHA C. BARTO, Notary Public
Allentown, Lehigh County, Pa.
My Commission Expires Jan. 13, 1986

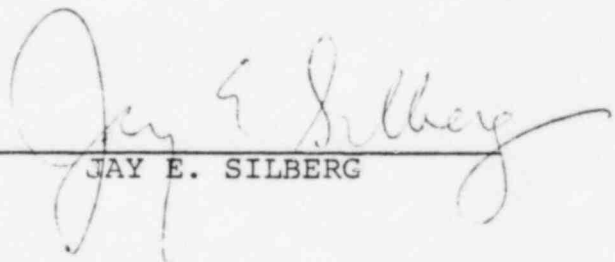
November 2, 1982

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CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing "Applicants' Response to Appeal Board's October 26, 1982 Order" were served by deposit in the United States Mail, First Class, postage prepaid, this 2nd day of November, 1982, to all those on the attached Service List.



JAY E. SILBERG

DATED: November 2, 1982

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