

September 6, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

THE CLEVELAND ELECTRIC)
ILLUMINATING COMPANY)

Docket Nos. 50-440
50-441

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(Perry Nuclear Power Plant,)
Units 1 and 2))

AFFIDAVIT OF DALWYN R. DAVIDSON
ON SLCS INITIATION

STATE OF PENNSYLVANIA)

: SS:

COUNTY OF BERKS)

Dalwyn R. Davidson, being duly sworn, deposes and says as follows:

I, Dalwyn R. Davidson, am a consultant to The Cleveland Electric Illuminating Company. My business address is 10 Center Road, Perry, Ohio 44081. Prior to August 9, 1983, when I retired from the company, my title was Senior Vice President. In that position, I had overall responsibility for the Perry Nuclear Power Plant, including plant design and communications between CEI and NRC. A summary of my professional qualifications and experience is attached hereto as Exhibit "A". I have personal knowledge of the matters set forth herein and believe them to be true and correct.

On August 13, 1982, I wrote a letter to Mr. A. Schwencer of NRC's Division of Licensing concerning CEI's plans for anticipated transients without scram (ATWS) design features for the Perry Plant. A copy of that letter is attached hereto as Exhibit "B". (A copy of this letter appears on Attachment 2 to OCRE's Motion for Summary disposition of Issue No. 6).

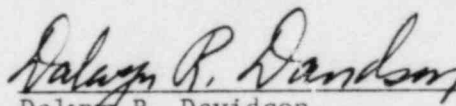
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In the August 13, 1982 letter, I stated that CEI was making certain changes in the Perry Plant in order to anticipate potential future requirements which might emerge from the ATWS rulemaking, which was then pending before the NRC. The letter documented discussions between CEI and the NRC staff at a July 20, 1982 meeting. With respect to the Standby Liquid Control System, I stated in the letter that:

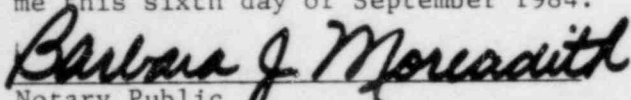
"Although the design includes both manual and automatic initiation capability, only manual initiation will be functional."

As this language indicates, we have the capability of including automatic initiation in the Perry SLCS, as well as the capability for manual initiation. However, only the manual initiation is functional, i.e., operational. By stating that the design would have "automatic capability," I was conveying to the NRC the fact that the SLCS design concept did not preclude changing the initiation mode to automatic should the final ATWS rule eventually require us to install automatic SLCS initiation. Thus, we hoped to avoid possible unnecessary construction delays when the final ATWS rule was issued.

My statement that the SLCS design included "automatic capability" was not intended to imply that our final design for the Perry SLCS would provide for automatic initiation. Only with additional equipment and changes in portions of the hardware installed, could the system be automatically initiated.


Dalwyn R. Davidson

Subscribed and sworn to before
me this sixth day of September 1984.


Notary Public

NOTARY PUBLIC

My Commission Expires: My Commission Expires March 1, 1986
BERKS COUNTY, READING, PA

RESUME OF
DALWYN R. DAVIDSON

EDUCATION: Case Institute of Technology - 1941
Bachelor of Electrical Engineering

EXPERIENCE:

1983-Present - In August 1983, retired from CEI, retained as a consultant to the company.

1941-1983 - The Cleveland Electric Illuminating Company.

Joined CEI in 1941 and occupied various positions in Engineering and Operations through 1967 when named Manager, System Planning Engineering Department.

In 1974, assumed position of Vice President, Engineering, and in 1979, following a reorganization within CEI, was named Vice President, System Engineering and Construction Group. Responsibilities included planning and coordinating the development of CEI's power production facilities and electrical systems, including the Perry Nuclear Power Plant.

In December 1982, named Senior Vice President maintaining overall responsibility for Engineering, Licensing, Quality Assurance, and Operation activities associated with the Perry Project. Reported to the Executive Vice President.

PROFESSIONAL
MEMBERSHIPS:

- Institute of Electrical and Electronics Engineers
- Registered Professional Engineer, State of Ohio
- National Society of Professional Engineers
- Edison Electric Institute, Codes and Standards Committee
- Business Roundtable of Northern Ohio, Coordinating Committee

Exhibit "A"



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

P.O. BOX 5000 • CLEVELAND, OHIO 44101 • TELEPHONE (216) 627-9800 • ILLUMINATING BLDG • 55 PUBLIC SQUARE

Serving The Best Location in the Nation

Malwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

August 13, 1982

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
ATWS Mitigation Design Features

Dear Mr. Schwencer:

In a meeting on July 20, 1982, between CEI and members of NRR, we discussed our plans for changing several systems associated with the mitigation of a postulated ATWS event. The Perry Nuclear Power Plant (PNPP) construction schedule and the current ATWS rulemaking schedule have made it necessary for us to anticipate potential future requirements. We believe it to be in our best interest to modify the current design and install these systems during our construction as opposed to waiting until the construction of these systems impacts our construction schedule or operations. The inclusion of these systems is based on the proposed rulemaking and is not based on a belief by CEI that these systems are needed to mitigate an ATWS event. As such, we maintain our support of industry comments on the proposed ATWS rule.

The basic changes to be made to the Perry plant include the following:

- (1) An increased flow capacity for the Standby Liquid Control System from 43 gpm to 86 gpm. This will involve increasing the size of both pumps' suction lines as well as changing the reactor vessel injection point to the HPCS header. Although the design includes both manual and automatic initiation capability, only manual initiation will be functional. The existing pumps will be used.
- (2) An upgrade to safety grade of the Recirculation Pump Trip initiation circuitry.
- (3) A control grade feedwater runback feature.
- (4) An Alternate Rod Insertion system which is redundant to the Reactor Protection System scram logic.

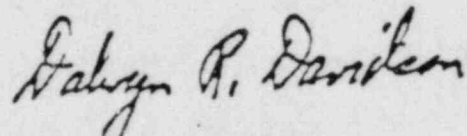
Exhibit "B"

A. Schwencer
ATWS Mitigation
August 13, 1982
Page 2

The details of the above described design will be submitted as an amendment to the Perry FSAR by January 1983.

We believe that this design along with appropriate emergency operating procedures and training adequately address the ATWS issue for PNPP.

Very truly yours,



Dalwyn R. Davidson
Vice President
System Engineering and Construction

DRD:WEC:mb

cc: Jay Silberg, Esq.
John Stefano
Max Gildner

September 7, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETED
USNRC

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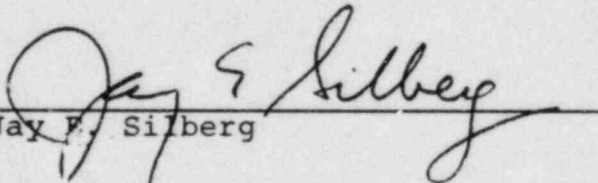
OFFICE OF SECRETARY
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BRANCH

In the Matter of)
)
THE CLEVELAND ELECTRIC)
ILLUMINATING COMPANY)
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

Docket Nos. 50-440
50-441

CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing "Applicants' Response to ASLB Request for Information on ATWS Rule and the Perry SLCS," "Affidavit of Gary R. Leidich on As-Built Status of SLCS Initiation," "Affidavit of Frank R. Stead on the Design of the Initiation Function of the Standby Liquid Control System," and "Affidavit of Dalwyn R. Davidson on SLCS Initiation" were served by deposit in the United States Mail, first class, postage prepaid, this 7th day of September, 1984, to all those on the attached Service List.


Jay F. Silberg

DATED: September 7, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)

THE CLEVELAND ELECTRIC)
ILLUMINATING COMPANY, ET AL.)

(Perry Nuclear Power Plant,)
Units 1 and 2))

Docket Nos. 50-440
50-441

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