

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
CLEVELAND ELECTRIC ILLUMINATING) Docket No. 50-440 OL
COMPANY, ET AL.) 50-441 OL
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

AFFIDAVIT OF JOHN A. GROBE CONCERNING ISSUE 6

STATE OF OHIO)
) SS
COUNTY OF LAKE)

I, John A. Grobe, being duly sworn, do depose and state as follows:

1. I am employed by the U.S. Nuclear Regulatory Commission (NRC), Region III Office, as the Senior Resident Inspector for Operations at the Perry Nuclear Power Plant (PNPP).
2. On request from the Office of Nuclear Reactor Regulation, I personally inspected the Standby Liquid Control System (SLCS) at PNPP, Unit 1, on August 27 through 30, 1984. I spent 24 hours reviewing the design and examining installation records and the physical installation of the SLCS.
3. The purpose of my affidavit is to describe the SLCS design and installation at PNPP, Unit 1, as I have observed it.
4. The current design of the SLCS at PNPP, Unit 1, incorporates manual switch initiation logic only. This design is reflected in General Electric (GE) Drawing No. 828E234CA, Revision 8, issued January 13, 1984, and Gilbert Associates, Inc. (GAI) Drawing No. B-208-030, Revision L, issued April 26, 1984. The following chronology describes the development of the current SLCS design, which I found by examining SLCS documents at the plant. While this is not a complete listing of all letters, memoranda and documents which address the SLCS during that time period, I believe that these references represent the major milestones in the development and implementation of the current SLCS design which incorporates manual initiation logic only.

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- (a) June 30, 1977 GAI issued Drawing No. B-208-030, Revision -, (initial revision of the final drawing) reflecting manual initiation logic for the SLCS.
- (b) January 30, 1981 Cleveland Electric Illuminating Co. (CEI) submitted the Final Safety Analysis Report (FSAR) to the NRC for docketing. The FSAR described the SLCS as a manually initiated system.
- (c) February 9, 1981 A letter was sent from D. Zupan (CEI) to W. Miotti (GE) accepting an offer from GE for Anticipated Transient Without Scram (ATWS) design change and analysis work based on Alternate 3A of NUREG 0460. The alternate included automatic initiation logic for the SLCS.
- (d) February 5, 1982 CEI responded to an intervenors interrogatory regarding ATWS indicating that the SLCS would be a manually initiated system.
- (e) June 18, 1982 GE issued Drawing No. 828E234CA, Revision 3, reflecting automatic initiation logic for the SLCS.
- (f) July 20, 1982 CEI held a meeting with NRC to discuss the ATWS design changes for PNPP.
- (g) July 22, 1982 A memorandum was sent from J. Stefano (NRC) to A. Schwencer (NRC) summarizing the results of the July 20, 1982, meeting. Stefano described the system upgrades for ATWS at PNPP to include "a manually operated standby liquid control system".
- (h) August 2, 1982 GAI issued Drawing No. B-208-030, Revisions E and F, reflecting automatic initiation logic for the SLCS.
- (i) August 9, 1982 A letter was sent from H. Putre (CEI) to R. Mitchell (GE) requesting a separate manual SLCS initiation design change package be prepared concurrent with the automatic initiation design package.
- (j) August 13, 1982 A letter was sent from D. Davidson (CEI) to A. Schwencer (NRC) documenting the results of the CEI-NRC July 20, 1982, meeting. The letter indicated that while the SLCS design is flexible, the SLCS would only be functional as a manually initiated system.

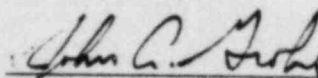
- (k) August 20, 1982 CEI responded to an intervenors interrogatory regarding ATWS indicating that while the SLCS design was flexible, the SLCS would operate as a manually initiated system.
- (l) August 31, 1982 A letter was sent from R. Mitchell (GE) to H. Putre (CEI) acknowledging the request for a design of the SLCS for manual initiation and indicating that the manual design change package would be prepared concurrent with the ongoing automatic design package.
- (m) September 16, 1982 A letter was sent from D. Green (CEI) to R. Mitchell (GE) accepting the work package offer from GE to prepare a design of the SLCS including manual initiation.
- (n) October 18, 1982 CEI responded to an intervenors interrogatory regarding ATWS describing the manual actions that would be taken by an operator to initiate SLCS following an ATWS.
- (o) February 15, 1983 CEI submitted Appendix 15C of the FSAR to the NRC for docketing. Appendix 15C concerns the ATWS modifications at PNPP and indicates that the SLCS would be a manually initiated system.
- (p) October 19, 1983 A letter was sent from R. Mitchell (GE) to P. Nichols (CEI) stating that GE would proceed with the implementation of the SLCS design change package incorporating manual initiation capability only.
- (q) December 16, 1983 GE issued Field Deviation Disposition Request (FDDR) No. KL1-964 which updated the ATWS modifications package to change to manual initiation logic for the SLCS.
- (r) January 13, 1984 GE issued Drawing No. 828E234CA, Revision 8, reflecting manual initiation logic for the SLCS.
- (s) February 16, 1984 GAI issued Drawing No. B-208-030, Revision K, reflecting manual initiation logic for the SLCS.

5. The SLCS is being built and its operating procedures have been written for manual initiation logic only. The "A" subsystem of the SLCS was turned over from construction to the nuclear testing section on August 27, 1984. The "B" subsystem of the SLCS was turned over from construction

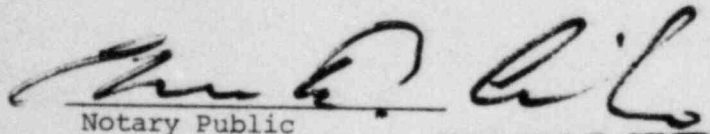
to the nuclear testing section on July 31, 1984. Therefore, construction of the two SLCS subsystems is essentially complete with several cable pulls, cable terminations and equipment deficiencies outstanding. Safety systems must be complete prior to preoperational testing. The SLCS is scheduled for preoperational testing in November/December 1984, and turn-over to the operations department in January/February 1985.

6. To convert the SLCS from manual initiation to automatic initiation logic would require the installation, modification or deletion of approximately forty cables, ten relays, and numerous wires, switches, indicating lights and annunciators. I physically examined the SLCS at PNPP, Unit 1 to determine if the installed equipment would support automatic initiation. The presently installed SLCS cannot be automatically initiated. Three cables had been installed which could have supported automatic initiation. Those cables were installed prior to GE issuing FDDR KLL-964 on December 16, 1983. Those cables are now listed as spares. FDDR KLL-964 terminated the installation of any additional equipment that would have supported automatic initiation of the SLCS.
7. In my opinion, the SLCS at PNPP, Unit 1, has been designed and built to function as a manually initiated system. The SLCS at PNPP, Unit 1 does not have automatic initiation features.

I attest that the foregoing affidavit is true and correct to the best of my knowledge and belief.


John A. Grobe

Subscribed and sworn to before me
this 31 day of AUG., 1984.



Notary Public

NORMAN D. AIKEN

Notary Public for the State of Ohio

My Commission Expires May 5, 1988

(Recorded in Lake County)