UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

AFFIDAVIT OF GEORGE THOMAS CONCERNING ISSUE 6

I, George Thomas, being duly sworn do depose and state as follows:

1. I am employed as a Nuclear Engineer by the U.S. Nuclear Regulatory Commission in the Office of Nuclear Reactor Regulation, Reactor Systems Branch. A statement of my professional qualifications is attached.

2. I reviewed section 15.8 of Perry FSAR concerning ATWS. I wrote the staff response to OCRE interrogatories on issue #6. I have read the SSER #3 Section 9.3.4 for the Perry plant entitled "Standby Liquid Control System" and can attest to the accuracy of the statements there concerning the Perry SLCS.

3. The new ATWS rule issued in June, 1984 requires that BWR plants granted a construction permit before July 26, 1984, that have been designed and built to include automatic SLCS initiation, implement

the automatic initiation feature before the issuance of an operating license above 5% of full power. The purpose of my affidavit is to address the question raised by the ATWS rule, 10 CFR 50.62(c)(4) as to the meaning of "Designed and Built" regarding SLCS at Perry.

4. In the judgment of the Reactor Systems Branch, NRR, the terms "Designed and Built" mean (a) necessary documentation exists to enable construction of a complete SLCS with a clear indication of the type of initiation and (b) physical installation of hardware has occurred, such as piping, valves, electrical cables, and panels in the plant, to the extent that construction is substantially complete.

5. The staff was informed by CEI by letter dated August 13, 1982 and amendment #11 of the Perry FSAR dated February 15, 1983 that only manual initiation would be functional even though the design initially provided options of automatic and manual initiation features. Since many design modifications are made by applicants prior to plant completion, the Staff considers the design of systems to be those most recently submitted. Thus, according to the most recent submissions, CEI elected to follow the design for manual initiation and the hardware was installed for manual initiation. Additionally, as stated by the affidavit of the NRC resident inspector, the SLCS already installed and essentially complete at the Perry plant is for manual initiation only.

6. Although the SLCS at Perry was designed to have an automatic initiation option, it was not built with this option. Therefore,

we do not consider the construction of an automatic initiated SLCS to be "substantially complete" and therefore it does not meet the definition of "designed and built" as stated in the ATWS rule.

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

George Thomas

George Thomas, Section B
Reactor Systems Branch
Division of Systems Integration
Office of Nuclear Reactor Regulation

Subscribed and sworn to before me
this 6th day of September, 1984

Edythe S. Becker
Notary Public

My commission expires: 7/1/86

PROFESSIONAL QUALIFICATIONS OF
GEORGE THOMAS
REACTOR SYSTEMS BRANCH
DIVISION OF SYSTEMS INTEGRATION
U.S. NUCLEAR REGULATORY COMMISSION

I have been employed as a Nuclear Engineer in the Reactor Systems Branch, Division of Systems Integration, Office of Nuclear Reactor Regulation, since October 1980.

I serve as a reviewer in the area of reactor systems (BWRs). This involves performing reviews and evaluations of those portions of the applications for Operating Licenses and submittals regarding proposed modifications in licensed nuclear power plants for which the branch has responsibility to assure public health and safety.

Since 1981, I participated in the Perry review for the Reactor Systems Branch.

I received a Bachelor of Science degree in physics from Kerala (India) University in 1963. Additional graduate and professional courses were taken in Nuclear Engineering, University of Pennsylvania and Engineers Club, Philadelphia, PA - 1975. Other educational background and training includes: Power Plant Engineering - 1976 (diploma from International Correspondence Schools, Scranton, PA); PWR Technology Course - 1980 (NRC sponsored); BWR/6 Simulator Course - 1981 (NRC sponsored); Tarapur Atomic Power Station (India) - Reactor Operators Training Program - 1969; GE BWR - Training at Tarapur by GE - 1967.

From 1967 to 1972 I served as a Reactor Operator on the Indian Atomic Energy Commission's first commercial nuclear power station, Tarapur 1 & 2 (a BWR built by Bechtel and GE). There I participated in construction tests, pre-operational tests, and normal operations of the station.

From 1973 to 1975 I was employed by United Engineers and Constructors (UE&C), Philadelphia, PA. Initially I was a Test and Start-up Engineer in the Construction Division of UE&C. In this capacity I wrote various procedures and systems descriptions for a BWR. Subsequently, I worked as a Staff Nuclear Engineer on the Nuclear Technical Staff of UE&C. I was engaged in providing technical expertise and consultation services to all nuclear projects of UE&C.

From 1975 to 1980 I was a Systems Engineer in the Power Division of Stone & Webster Engineering Corporation. I performed detailed engineering and design of reactor systems of a BWR. My duties included project interface and coordination work with the NSSS supplier (GE) and the client (utility).