

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD



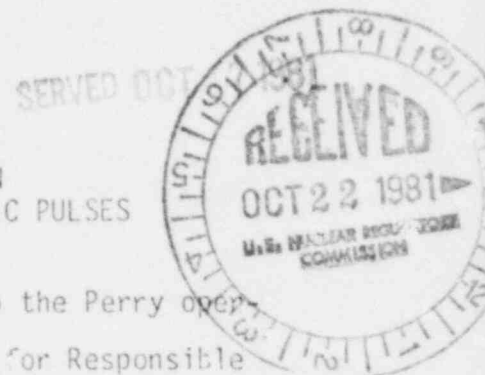
CLEVELAND ELECTRIC ILLUMINATING COMPANY,  
ET AL  
(Perry Nuclear Power Plant, Units 1 & 2)

Docket Nos. 50-440  
50-441-01

October 7, 1981

MEMORANDUM TO THE COMMISSION

CONCERNING  
OHIO CITIZENS FOR RESPONSIBLE ENERGY'S MOTION  
FOR LEAVE TO FILE A CONTENTION ABOUT ELECTROMAGNETIC PULSES



On October 2, 1981 the Board refused to admit into the Perry operating license proceeding a contention of the Ohio Citizens for Responsible Energy (OCRE), relating to the potentially disruptive effect of electromagnetic pulses (EMP) on plant operation. The issue was considered to be barred from the proceeding by §50.13.

We consider our ruling to be correct and do not wish to refer it to you for review. However, we wish to share with the Commission a serious concern related to the OCRE contention. We note that this concern is not just ours, but may be widely shared because of its treatment in recent popular and professional science publications. In particular, OCRE's contention arose from an article in Science News, May 19, 1981 at p. 300. Further, Science magazine has treated this same subject intensively, in its September 11, 1981 issue at pp. 1228-1229; in its June 12, 1981 issue at p. 1009; in its June 5 issue at p. 1116; and in its May 29 issue at p. 1009.

Our concern is that if power reactors are not hardened against EMP this could have serious civil defense consequences, including increased vulnerability of the United States to: (1) attacks by nations or terrorist groups with limited nuclear and missile capabilities, or (2) inadvertent damage during attacks on other nations. Furthermore, as NUREG-0153 (December 1976) indicates (at pp. 27-1 to 27-7), there may be only a few

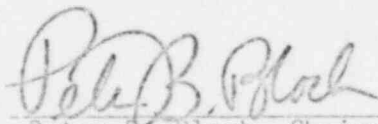
B110220441 B11007  
PDR ADOCK 05000440  
G PDR

D502  
50/1

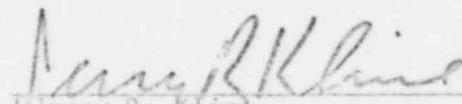
reactor systems which need hardening against EMP, so the cost of hardening may not be excessive.

The most authoritative Commission document on this subject is NUREG-0153, but it does not appear to be the thorough treatment which this potentially important subject deserves. That NUREG does not reach any independent staff conclusions about the susceptibility of plants to EMP or the cost of constructing additional defenses for essential safety equipment. We suggest that the Commission inform the public of efforts that are being taken to assure the safety of power reactors from EMP or to determine that such steps are too costly. The Commission also may wish to consider undertaking additional studies or cooperative examinations with the Department of Defense.

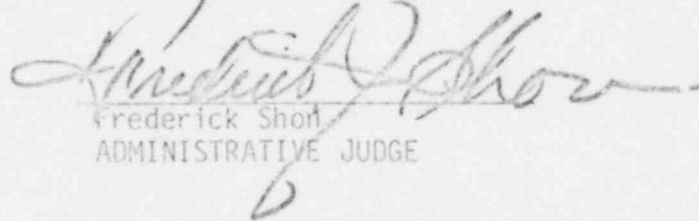
## THE ATOMIC SAFETY AND LICENSING BOARD



Peter B. Bloch, Chairman  
ADMINISTRATIVE JUDGE



Jerry R. Kline  
ADMINISTRATIVE JUDGE



Frederick Shon  
ADMINISTRATIVE JUDGE

October 7, 1981  
Bethesda, Maryland