

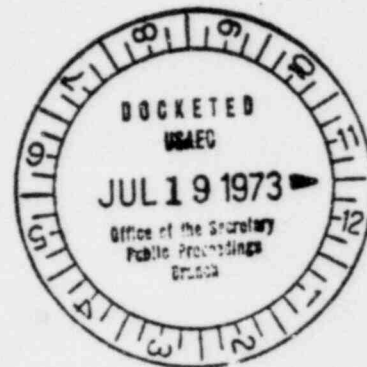
SUPPLEMENTAL TESTIMONY

TO FINAL ENVIRONMENTAL STATEMENT  
related to construction of  
DAVIS-BESSE NUCLEAR POWER STATION  
TOLEDO EDISON COMPANY and  
CLEVELAND ELECTRIC ILLUMINATING COMPANY

Docket No. 50-346

Issue 5

CUMULATIVE AND SYNERGISTIC EFFECTS  
ON LAKE ERIE



Effluents from other nuclear reactors operating adjacent to Lakes Michigan, Superior and Huron fall into three categories: thermal, chemical and radioactive.

Thermal and chemical synergy has been adequately evaluated in the FES in that no significant contributions were attributable to other reactors operating adjacent to those Lakes. The thermal contributions are, at most, a few thousand megawatts per reactor. Similarly, the chemical contributions are, at most, a few tons/year per reactor. Even if several hundred reactors were operating, their total contributions to temperature rises and/or chemical concentrations in Lake Erie would not be detectable by even the most sensitive of biota. Such contributions would be very much smaller than the observed natural variations in Lake Erie. Since at least two of three effects are nonexistent in Lake Erie, there can be no synergism. Synergism requires the interaction of at least two factors.

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Radiological effects themselves are certainly no more than additive. Monitoring stations in the area (see section 2.8 of the FES) have failed to show local increments of radioactivity attributable to currently operating reactors.