

UNITED STATES OF AMERICA  
ATOMIC ENERGY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
WISCONSIN PUBLIC SERVICE CORPORATION	)	
WISCONSIN POWER AND LIGHT COMPANY	)	Docket No. 50-305
AND	)	
MADISON GAS AND ELECTRIC COMPANY	)	
	)	
(Kewaunee Nuclear Power Plant)	)	

AFFIDAVIT IN SUPPORT OF  
MOTION FOR SUMMARY DISPOSITION

State of Maryland        )  
                                  ) ss  
County of Montgomery)

The undersigned, E. W. Daniels, being first duly sworn, hereby deposes and says as follows:

1. A statement of by background and qualifications has been filed and is a part of the Docket in this matter .

2. Contention 6.4.3

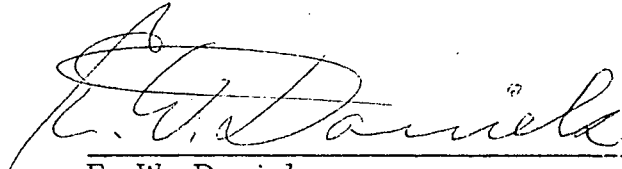
There has been a question regarding the fate of diatoms entrained in the condenser cooling water. Will they be significantly impaired or killed by the temperature shock? There is a lack of information on the effect of short, approximately 3 minute exposure of Lake Michigan

diatoms, or those in similar bodies of water, to heat in the range of 20°F - 30°F T, particularly in field studies. It is questionable whether or not significant numbers of diatoms will be damaged or killed as a result of condenser passage at the Kewaunee Plant. Diatom die-offs occur regularly in the lake as a natural phenomenon. The Point Beach Station has had no significant impact on diatom die-offs as reflected in terms of plankton biomass. (Argonne National Laboratory Study by S. A. Spigarelli and W. Prepejchal: Radiological Physics Division Annual Rept. Part III, ANL-7860 (1971) pages 109-117.)

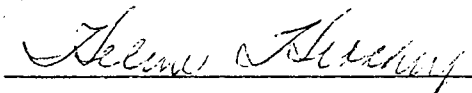
On the basis of his work with phytoplankton that passed through the condensers at Point Beach, Dr. Ayers stated that, "If some change is occurring in the phytoplankton as a result of passing through the condensers, it does not appear to be significant." He also stated that in his opinion the sudden warming of phytoplankton as a result of passage through the condensers may temporarily reduce or suspend their capacity to reproduce, or the organisms may not be in the warm water plume long enough to observably increase their numbers. (Testimony by Dr. Ayers at Point Beach Hearings, July, 1972, pages 4 & 12.)

Plankton condenser passage is addressed in the FES: pages V-14 and 15; thermal discharge effects are considered in pages V-19 and 20. As

a result of my review and study of this matter, it is my opinion that no important damage to the diatom population will occur in the Lake as a result of the operation of the Kewaunee Plant.

  
\_\_\_\_\_  
E. W. Daniels

Subscribed to and sworn before  
me this 2nd day of February, 1973

  
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My Commission expires 7/1/74