

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of  
CONSUMER POWER COMPANY  
(Midland Plant, Units 1 and 2)

)  
) Docket Nos. 50-329 OM & OL  
) 50-330 OM & OL

AFFIDAVIT OF JOSEPH KANE

My name is Joseph Kane. I am a Senior Geotechnical Engineer with the Structural and Geotechnical Engineering Branch, Division of Engineering, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission. My professional qualifications and responsibilities with the Midland Project have been provided to the Atomic Safety and Licensing Board in previously submitted testimony.

I have read the Atomic Safety and Licensing Board Ruling on Motions Arising from Dow Litigation of May 7, 1984 and I have prepared the attached response in reply to the Board's direction in Footnote 14, page 23 regarding the basis of my testimony in addressing Stamiris Exh. 19. To the best of my knowledge and belief, the information contained in the attached response is correct.

Joseph Kane  
Joseph Kane

Subscribed and sworn to before me  
this 11<sup>th</sup> day of June, 1984.

Edythe S. Becker  
Notary Public

My commission expires: 7/1/86.

RESPONSE OF JOSEPH KANE TO ASLB  
MEMORANDUM AND ORDER RULING ON MOTIONS  
ARISING FROM DOW LITIGATION

On page 23 of the May 7, 1984 Memorandum and Order (Ruling on Motion Arising from Dow Litigation), the Atomic Safety and Licensing Board refers to my testimony of August 8, 1981 (Tr. 3589-3636) as a consideration in its ruling on Ms. Stamiris' third proposed contention. In footnote 14 on page 23 the Board indicates its assumption that my testimony took into account the hammer weight and fall in relying on the blow counts shown on Stamiris Exh. 19.

The purpose of this Affidavit is to respond to the Board's assumption as requested in footnote 14 and to give the basis of my testimony (Tr. 3618-3619).

During my appearance as a witness in the August 8, 1981 hearing session, the focus of Ms. Stamiris' interest and questions of me on boring "D" were directed to the proper location of boring "D" and to the presence of a concrete mudmat at Elevation 622 on the boring log (Tr. 3590-3597; 3615-3636).

The question asked of me by Mr. Paton (Tr. 3618) attempted to determine if the log for boring "D" indicated good or bad soil under the Diesel Generator Building. I replied that the soil explored by boring "D" is competent based on the blow counts reflected on the boring log. My statement on soil competency had assumed that the standard procedures of ASTM D1586 had been

followed where a hammer weight of 140lbs had been dropped the specified 30-inches in the Standard Penetration Test (SPT). In my response to Mr. Paton, I did not focus on the space on the log of Stimiris Exh. 19 which indicates, in barely visible numbers, a hammer fall of 18-inches.

As indicated in Consumers Power Company's letter of April 30, 1984 to the Board, there are apparent discrepancies with the log for boring "D" as to whether the actual hammer fall was 18-inches or 30-inches. If the hammer fall was 30-inches, as I had assumed during my August 8, 1981 testimony and as it has been submitted in June 1982 to the NRC in the typed edition of the boring log in 50.54(f) documents entitled "Responses to NRC Request Regarding Plant Fill," then my testimony on soil competency (Tr. 3618-3619) would be unchanged. If however, the actual hammer fall height was 18-inches, then my testimony would change significantly because the blow counts would have reflected less competent soil than my testimony had indicated, and there would be a need to correct the hearing record. For such a case, significant questions of the Applicant would need to be asked and answered in order to understand the reasons and basis for deviating from the specified procedures of ASTM D1586 in the exploration program intended to investigate the foundation condition of the already placed plant fill following discovery of the settlement problem at the Administration Building.