

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
CONSUMERS POWER COMPANY	)	Docket Nos. 50-329 OM & OL
	)	50-330 OM & OL
(Midland Plant, Units 1 and 2)	)	

TESTIMONY OF DARL S. HOOD WITH RESPECT TO A  
LICENSING BOARD QUESTION CONCERNING CONTINUED CONSTRUCTION

Q. 1. Please state your name and position with the NRC.

A. My name is Darl S. Hood. I am a Senior Project Manager in the Division of Licensing, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission.

Q. 2. Have you prepared a statement of professional qualifications?

A. Yes. A copy of this statement is attached.

Q. 3. Please state the duration and nature of your responsibilities with respect to the Midland Plant, Units 1 and 2.

A. I am the Project Manager for the Midland Plant application for operating licenses. I have served in that position from August 29, 1977, when the application for operating licenses was tendered to the NRC for acceptance review, up to the present time. My responsibilities include management of the Staff's environmental and radiological safety reviews.

8106090 720

Q. 4. Please state the purpose of this testimony.

A. During the Prehearing Conference on January 28-29, 1981 and in its Prehearing Conference Memorandum of February 27, 1981, the Licensing Board that if on-going or near-term construction activities could have an adverse impact on proposed remedies, the Staff should present evidence to that effect so that the Board could consider whether any halt in planned or on-going construction activities would be appropriate pending resolution of the soils settlement questions. This testimony is in response to the Board's statement.

Q. 5. What is the NRC Staff's position regarding the Board's statement?

A. The Staff has been advised by Consumers that there are two near-term construction activities important to their scheduling needs that they wish to begin at this time. These activities include:

1. Proceeding with the installation of 20 permanent back-up interceptor wells in the area near the Service Water Structure and the Circulating Water Intake Structure. This work is in preparation for dewatering and installing the remedial supporting wall beneath the overhang portion of the Service Water Structure.
2. Surcharging the two valve pits which are adjacent to each of the Borated Water Storage Tanks.

Over the last several months the Staff and Consumers have been resolving their differences on proceeding with the installation of the

20 back-up wells. A revised specification and Q/A program for installing the wells which incorporates the recommendations of the NRC Staff and the Corps of Engineers is to be provided by Consumers the week of June 8, 1981. Upon receipt and favorable review by the Staff of the revised specification and Q/A program, the NRC will be in a position to concur with Consumer's decision to proceed with the well installations.

The Staff indicated at meetings held with Consumers in Bethesda on May 5-7, 1981 that there was no objection with proceeding with surcharging of the valve pits adjacent to the borated water tanks provided agreement with the Staff could be reached on an acceptable program for monitoring of settlement and potential structural distress during surcharging and on the need for disconnecting piping leading to the valve pits. These concerns of the Staff are not yet resolved.

DARL S. HOOD

OFFICE OF NUCLEAR REACTOR REGULATION  
U.S. NUCLEAR REGULATORY COMMISSION

PROFESSIONAL QUALIFICATIONS

I am a Senior Project Manager in the Division of Licensing, Office of Nuclear Reactor Regulation. I am responsible for managing licensing activities by the Commission with respect to Midland Plant, Units 1 and 2.

I have served in the position of Project Manager with the Commission since August 1976. This position provides for the managing of radiological safety reviews of applications for licenses and authorization to construct or operate light water nuclear power plants. As of April 1980, the position also provides for the managing of the environmental reviews of such applications. I assumed responsibility for Midland Plant, Units 1 and 2, when the application for operating licenses was tendered in August 1977. Other nuclear plants for which I have previously served in this capacity are the standardization design of Westinghouse which is designated RESAR-414 (Docket STN50-572), Catawaba Nuclear Station, Units 1 and 2 (Dockets 50-413 and 50-414), and River Bend Station, Units 1 and 2 (Dockets 50-458 and 50-459).

Between June 1969 and August 1976 I held two sequential positions within the Nuclear Power Systems Division of Combustion Engineering, Inc. (C-E) at Windsor, Connecticut. After March, 1973, I was Assistant Project Manager for the Duke Power Project. This position provided assistance in directing all efforts by C-E to design, fabricate, purchase and license the nuclear steam supply systems, reactor core, and associated auxiliary systems for Cherokee Units 1, 2 & 3 and Thomas L. Perkins Units 1, 2 & 3. The position assured that all aspects of the contracts were met and that safe and reliable systems were provided to the required schedule and at a reasonable profit to C-E. I assisted Duke Power in preparing the Preliminary Safety Analysis Report (PSAR) and provided for all C-E licensing support for these units. I also provided coordination of all other nuclear plants referencing the C-E Standard Safety Analysis Report to assure compatibility with C-E standard reference design. Until March, 1973, I was a Project Engineer in C-E's Safety and Licensing Department and was responsible for licensing of nuclear power plants. I coordinated the preparation of the Millstone Unit 2 PSAR and FSAR and the Calvert Cliffs Units 1 & 2 FSAR and interfaced with NRC, the utility, architect engineer and all C-E functional departments on licensing support matters. I ensured that NRC criteria, standards, and guides were incorporated into the nuclear steam supply system design.



Between August 1966 and June 1969, I was a Nuclear Safety and Radiation Analysis Engineer in the Nuclear Safety Unit, Nuclear Division of the Martin Marietta Corporation at Baltimore, Maryland. The purpose of this position was to perform hazard evaluations for nuclear power sources applied in space missions. My primary duty was to determine public exposure to radiation for malfunctions occurring during the intended mission. I also determined means by which the hazard potential for nuclear space systems could be mitigated to the extent that nuclear safety criteria were met. I conducted research with regards to the development of suitable criteria for permissible exposure levels and their probabilities, taking into account the dependence of acceptable risk on the benefit to be derived. My primary assignment was with the SNAP 29 (Systems for Nuclear Auxiliary Power) project. My evaluations of this nuclear power source included the formulation and application of computerized models for the transport of fuel released at high altitudes, in deep ocean and in shallow waters. I derived models for these release areas to incorporate the activity into human food chains and determined the expected ingestion dose, the number of people involved and the exposure probabilities. Inhalation dose was determined for radioactive fallout from the high-altitude release.

Between February 1965 and August 1966 I was a Nuclear Quality Control Engineer within the Electric Boat Division of General Dynamics at Groton, Connecticut. The purpose of this position was to provide control of quality for naval reactor systems, components, and shielding during the construction or overhaul of submarines by this shipyard. My primary area of responsibility was shielding. Duties included establishing procedures for the inspection of fabrication and installation of lead and polyethylene shielding, and resolving problems in complying with these or other shielding procedures. The position required a knowledge of nuclear theory, SSW systems design, Bureau of Ships contract and design requirements, non-destructive testing techniques, and quality control requirements.

Between November 1963 and February 1965, I was an Aeronautical Engineer for Nuclear Propulsion and Power at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration in Huntsville, Alabama. I performed investigations of the nature and magnitude of the nuclear radiation environment, shielding systems and safety systems associated with proposed nuclear space vehicles for candidate space missions.

Between November 1963 and college graduation in 1962, I held various positions including chief of a missile electronics training unit at Redstone Arsenal, Alabama; student at the U.S. Army Signal Officer's Orientation Course at Fort Gordon, Georgia; and Marine Engineer for ordnance and special weapons within the Design Division of the Norfolk Naval Shipyard, Portsmouth, Virginia.

I received a Bachelor of Science Degree in Nuclear Engineering from North Carolina State University in 1962. I am a member of the Health Physics Society.

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

\*Atomic Safety and Licensing  
Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

James E. Brunner, Esq.  
Consumers Power Company  
212 West Michigan Avenue  
Jackson, Michigan 49201

Ms. Barbara Starnis  
5795 N. River  
Freeland, Michigan 48623

Mr. Steve Gadler  
2120 Carter Avenue  
St. Paul, Minnesota 55108

Wendell H. Marshall, Vice President  
Midwest Environmental Protection  
Associates  
RFD 10  
Midland, Michigan 48640

James R. Kates  
203 S. Washington Avenue  
Saginaw, Michigan 48605

Frank J. Kelley  
Attorney General of the State  
of Michigan  
Steward H. Freeman  
Assistant Attorney General  
Gregory T. Taylor  
Assistant Attorney General  
Environmental Protection Division  
720 Law Building  
Lansing, Michigan 48913

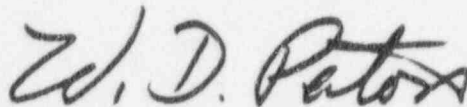
Myron M. Cherry, Esq.  
1 IBM Plaza  
Chicago, Illinois 60611

Jeann Linsley  
Bay City Times  
311 Fifth Street  
Bay City, Michigan 48706

Paul C. Rau  
Midland Daily News  
124 McDonald Street  
Midland, Michigan 48640

\*Atomic Safety and Licensing  
Appeal Board Panel  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

\*Docketing and Service Section  
Office of the Secretary  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555



William D. Paton  
Counsel for NRC Staff