

# TERA

January 4, 1983

Mr. James W. Cook  
Vice President  
Consumers Power Company  
1945 West Parnall Road  
Jackson, Michigan 49201

Mr. J. G. Keppler  
Administrator, Region III  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Mr. D. G. Eisenhut  
Director, Division of Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Re: Docket Nos. 50-329 OM, OL and 50-330 OM, OL  
Midland Nuclear Plant - Units 1 and 2  
Independent Design and Construction Verification (IDCV) Program  
Structural Evaluation of the Diesel Generator Building -  
Assessment of the Structural Performance Capability as  
Potentially Affected by Settlement Induced Cracking

Gentlemen:

Attached is our recently completed engineering evaluation of the structural performance capability of the diesel generator building. This evaluation was undertaken in accordance with the defined scope of the IDCVP as part of our broader assessment of the quality of the design and constructed product of the Midland plant Standby Electric Power system. We are transmitting it to you because of its relevance to ongoing discussions concerning the potential effects of settlement induced cracking on the capability of the DGB to meet intended performance requirements over its service life.

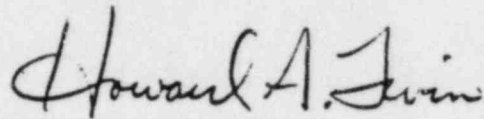
We have concluded that the existing cracks, generally being of small size, are not indicative of a condition that would compromise the capability of the DGB in meeting its intended performance requirements. Furthermore, it is judged that significant future cracking is unanticipated and the DGB is expected to remain serviceable without further remedial action at this point in time. We have

B40B150741 B4071B  
PDR FOIA  
RICE84-96 PDR

reviewed Consumers Power Company's commitments to verify continued serviceability and have concluded that these are acceptable; however, we have offered certain recommendations for consideration that are intended to improve available information and reduce operational constraints.

Should you desire further articulation of the bases for our conclusions, we would welcome the opportunity for discussion.

Sincerely,



Howard A. Levin  
Project Manager  
Midland IDCV Program

Enclosure

cc: L. Gibson, CPC.  
R. Erhardt, CPC  
J. Mooney, CPC  
D. Budzik, CPC  
D. Quammy, CPC (site)  
R. Whitaker, CPC (site)  
R. Burg, Bechtel  
J. Taylor, NRC, I&E HQ  
T. Ankrum, NRC, I&E HQ  
D. Hood, NRC, NRR  
Midland IDCVP Service List

HAL/si



**SERVICE LIST FOR MIDLAND INDEPENDENT DESIGN  
AND CONSTRUCTION VERIFICATION PROGRAM**

cc: Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

James G. Keppler, Regional Administrator  
U.S. Nuclear Regulatory Commission,  
Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

U.S. Nuclear Regulatory Commission  
Resident Inspectors Office  
Route 7  
Midland, Michigan 48640

Mr. J. W. Cook  
Vice President  
Consumers Power Company  
1945 West Parnall Road  
Jackson, Michigan 49201

Michael I. Miller, Esq.  
Isham, Lincoln & Beale  
Three First National Plaza,  
51st floor  
Chicago, Illinois 60602

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

Ms. Mary Sinclair  
5711 Summerset Drive  
Midland, Michigan 48640

Cherry & Flynn  
Suite 3700  
Three First National Plaza  
Chicago, Illinois 60602

Ms. Lynne Bernabei  
Government Accountability Project  
1901 Q Street, NW  
Washington, D.C. 20009

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

Mr. Wendell Marshall  
Route 10  
Midland, Michigan 48440

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

Ms. Billie Pimer Garde  
Director, Citizens Clinic  
for Accountable Government  
Government Accountability Project  
Institute for Policy Studies  
1901 Que Street, N.W.  
Washington, D.C. 20009

Charles Bechhoefer, Esq.  
Atomic Safety & Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dr. Frederick P. Cowan  
Apt. B-125  
6125 N. Verde Trail  
Boca Raton, Florida 33433

Jerry Harbour, Esq.  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Ron Callen  
Michigan Public Service Commission  
6545 Mercantile Way  
P.O. Box 30221  
Lansing, Michigan 48909

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



## ENGINEERING EVALUATION COVER SHEET

TITLE Structural Evaluation of the Diesel Generator Bldg.CONT. ID. NO. 3201-001-031PROJECT: CONSUMERS POWER COMPANY MIDLAND IDCVNO. OF SHTS. 42

SUPERSEDES ENG. EVAL. NO.

REV. NO.	REVISION	ORIGINATOR	DATE	REVIEWED BY	DATE	APPROVED BY	DATE
0	Original	<i>ell</i>	12/30/83	<i>G.S.</i>	12/30/83	<i>MR</i>	1/4/84

TOPIC NUMBER 111.5-2, 111.6-2, 111.7-2  PRIMARY EVALUATION  SUPPORTING EVALUATION  
 TOPIC TITLE Civil/Structural Design Considerations, Foundations, Concrete/Steel Design

## METHOD/EXTENT OF REVIEW

1. Review of Midland project generated information including calculations, consultant reports, testimony, etc.
2. Independent calculations and evaluations by IDCVP Review Team.

## PURPOSE

Evaluation of settlement induced cracking as it may potentially affect intended performance requirements and serviceability of the diesel generator building.

## CONTENTS (SEE SECTION 2., PI-3201-001)

- ABSTRACT
- OVERVIEW OF REVIEW PROCESS
- BASES FOR SAMPLE SELECTION
- SOURCES OF INFORMATION/REFERENCES
- BACKGROUND DATA (INPUTS, ASSUMPTIONS, RELATED CALCULATIONS)
- ACCEPTANCE CRITERIA (CODES, STANDARDS, FSAR, NRC GUIDANCE, REGULATIONS)
- EVALUATION (DOCUMENTATION OF REVIEW AGAINST CHECK LIST, (ACCEPTANCE CRITERIA)
- CONCLUSIONS

