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August 26, 1981

Harold R Denton, Director  
Office of Nuclear Reactor Regulation  
US Nuclear Regulatory Commission  
Washington, DC 20555

MIDLAND PROJECT  
DOCKET NOS 50-329, 50-330  
SOILS SETTLEMENT REMEDIAL ACTION  
FOR THE SERVICE WATER PUMP STRUCTURE (SWPS)  
FILE: 0485.16, B3.0.8 SERIAL: 13738  
REFERENCES: JWCOOK TO HRDENTON, SERIAL 11625 DATED MARCH 23, 1981.  
ENCLOSURES: MIDLAND UNITS 1 AND 2 - TECHNICAL REPORT  
ON UNDERPINNING THE SERVICE WATER PUMP STRUCTURE.



In the referenced correspondence of March 23, 1981 we advised the NRC of the underpinning concept for the overhanging portion of the service water pump structure which is a full length wall extending into the natural till material. This full length wall concept was adopted to replace the original remedial action, a driven pile support concept, as a result of the increased seismic requirements imposed by the staff. We are forwarding thirty (30) copies of the enclosed report entitled "Technical Report on Underpinning the Service Water Pump Structure" which describes the design and construction requirements of this SWPS remedial action.

The design and construction criteria contained in the attached report has been written to provide the NRC with information which substantially exceeds the construction permit level of detail. Included in this report are the following types of information: (1) drawings showing the underpinning scheme and a description of the construction sequence for this scheme; (2) dewatering for construction; (3) the design and acceptance criteria for the underpinning scheme, including load combinations, bearing pressures, structural stresses, and seismic loads; (4) applicable codes; and (5) scope of the quality assurance requirements.

The proposed service water structure remedial underpinning is approximately a 4-foot thick, reinforced concrete wall that is approximately 30 feet high with a flared base at the north wall and is constructed to act as a continuous member under the perimeter of that portion of the structure founded on backfill material. In addition, a predetermined jacking force will be applied to the full perimeter of the SWPS overhang during construction to provide adequate load transfer from the structure to the underpinning wall.

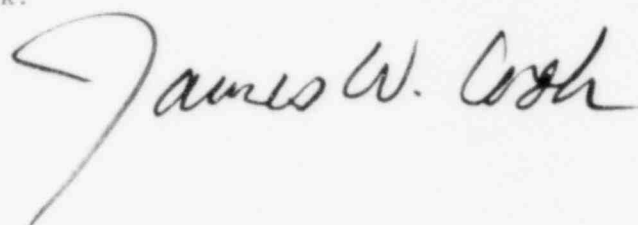
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While we believe that the enclosed report provides sufficient information to permit the NRC to review and provide its concurrence with the proposed underpinning scheme, we suggest that a technical review meeting be held during the week of August 31, 1981 to respond to any outstanding NRC concerns. Please contact us to establish a mutually agreeable day for this meeting.

Your expeditious review and approval would be most appreciated to support the hearings and construction of the remedial work.



JWC/RLT/cr

CC Atomic Safety & Licensing Appeal Board, w/o  
Atomic Safety & Licensing Board Panel, w/o  
Charles Bechhoefer, Esq, w/o  
MMCherry, Esq, w/o  
RJCook, Midland Resident Inspector, w/o  
Dr FPCowan, w/o  
RSDecker, w/o  
NRC Docketing Service Section, w/a  
SGadler, w/o  
RWHuston, Washington, w/a  
JDKane, NRC w/a  
FJKelley, Esq, w/o  
WHMarshall, w/o  
MIMiller, Esq, w/a  
Wotto, US Army Corps of Engineers, w/a  
WDPaton, Esq, w/o  
MSinclair, w/o  
BStamiris, w/o  
HSingh, US Army Corps of Engineers, w/a

BCC RCBauman/TRThiruvengadam, P-14-400, w/o  
WRBird, P-14-418A, w/a  
JEBrunner, M-1079, w/a  
GSKeeley, P-14-113B, w/a  
DBMiller, Midland, w/a  
NRRamanujam, P-14-100, w/a  
TJSullivan/DMBudzik, P-24-517, w/o  
RLTeuteberg, P-24-513, w/a  
ALBoos, Bechtel, w/a  
Dr AJHendron, Bechtel Consultant, w/a  
DFJudd, B&W, w/o  
Dr Ralph B Peck, Bechtel Consultant, w/a  
SSAfifi, Bechtel, w/a  
JARutgers, Bechtel, w/a  
WJCloutier, P-24-611, w/a  
KLRazdan, P-13-220, w/a