Docket File

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

August 3, 1970

Roger S. Boyd, Assistant Director for Boiling Water Reactors, DRL
THRU: Robert L. Tedesco, Chief, Boiling Water Reactor Branch 2, DRL

TECHNICAL MEETING WITH THE TOLEDO EDISON COMPANY AND DETROIT EDISON COMPANY REGARDING FLOOD PROTECTION REQUIREMENT FOR LAKE ERIE
DOCKET NO. 50-346

A meeting was held with The Toledo Edison Company and the Detroit Edison Company on July 17, 1970. The purposes of this meeting were to discuss results of the applicants' storm surge analysis on Lake Erie and to arrive at the flood protection level required for the two plants located on the southwestern and western shore of Lake Erie. The attendance list is enclosed.

Following the discussion of the storm and wind fields used in arriving at the maximum resulting lake surge, the protection requirements for the Fermi site and the Davis-Besse site were established for the Probable Maximum Meteorological Event (PMME) flood on Lake Erie. A summary of the effects which must be included to establish the flood protection level follows:

Lake Erie Mean Low Water Level Datum 568.6 feet (MSL)*

Variance	Fermi 2	Davis-Besse
Mean Lake Level (ft)	+4.8	+4.8
Wind Surge (ft)	+11.6	+9.3
Local Seiches	0	+1.0
Wave & Wave Runup	not determined	not determined
Total	16.4+	15.1+
Grade level	583	584
Present Flood Protection	585	585
Maximum Lake Still Water Level	585	583.7
Margin for Wave & Wave Runup	0	1.3

*MSL = mean sea level (IGLD) International Great Lake Datum

Toledo Edison indicated it would analyze the wave and wave runup effect and establish the flood protection for the Davis-Besse site. D. Nunn of the SERG Branch is analyzing these effects independently. Toledo Edison indicated that the Davis-Besse site will be protected from flooding by either constructing additional barriers on the lake side of the site or using flood bulk head doors to protect all equipment required for safe shutdown of the facility.

Documentation of the flood protection level for the Davis-Besse site will be submitted about August 4, 1970 as Amendment No. 8. The Toledo Edison Company will commit to the required flood protection by letter prior to the ACRS Subcommittee meeting scheduled for August 4, 1970.

The flood protection for the Fermi 2 site will require a higher level of protection than the Davis-Besse site due to the higher wind surge (11.6 ft versus 9.3 ft) and due to its location closer to the lake shoreline. Detroit Edison Company indicated it will use a lake break water barrier to protect the site. Additional analyses will be performed to establish the wave and wave runup requirements for the site.

Discussion with the applicants (TEC) on July 23, 1970 indicated the wave runup calculations were completed, and the flood protection for the plant would require protection to the 591-foot elevation. TEC indicated this 591-foot flood protection level will be provided by using a dike-type barrier. The analysis and protection for flooding at the Davis-Besse site will be documented in Amendment 8. TEC calculated the wave runup to be about 6.3 feet. D. Nunn calculated the wave runup to be 6.8 feet. We have indicated in the Davis-Besse ACRS report that the flood protection level of 591 feet (MSL) is acceptable.

Raymond R. Powell
Boiling Water Reactor Branch 2
Division of Reactor Licensing

Enclosure:
List of Attendees

Distribution:

Docket File	P. Howe
DRL Reading	E. G. Case, DRS
BWR-2 File	R. Maccary
P. A. Morris	CO (2)
F. Schroeder	Branch Chiefs, DRL,DRS
T. R. Wilson	R. Powell
R. DeYoung	H. Steele
D. Skovholt	Attendees, AEC
B. Grimes	

TOLEDO EDISON COMPANY
AND
DETROIT EDISON COMPANY

JULY 17, 1970 MEETING

AEC - DRL

R. S. Boyd

R. Tedesco

R. Powell

P. W. Howe

D. E. Nunn

L. Rib

CERC

R. A. Jachowski

Dames & Moore

P. Courtney

G. Leal

Detroit Edison Company

W. Milarity

R. Briggs

Univ. of Michigan

E. D. Michelene

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Toledo Edison Co.

L. Rce

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