TOLEDO EDISON

LOWELL E. ROE
Vice President
Facilities Development
(419) 259-5242

Docket No. 50-346

Operating License No. NPF-3

Serial No. 481

January 16, 1979

Director of Nuclear Reactor Regulations
Attention: Mr. Robert W. Reid, Chief
Operating Reactors Branch No. 4
Division of Operating Reactors
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Reid:

In our letter to you on May 26, 1978, Serial No. 439, we agreed to remeasure the reactor coolant system flow rate after removal of the burnable poison rod assemblies (BPRAs) and orifice rod assemblies (ORAs), and to supply information on flow data and total pressure drops, as required in Davis-Besse Unit 1 operating license NPF-3, Condition 2.C.(3)(1), Amendment 7. The information in this letter revises the results obtained before the removal of the BPRAs and ORAs, which were supplied in our letter dated April 24, 1978, Serial No. 428.

The four-pump flow rate after removal of the BPRAs and ORAs was 149.75 million pounds per hour or 403,300 gallons per minute at the cold leg. This is 114.6% of the design flow rate for four-pump operation. The design flow rate is 352,000 gallons per minute for four-pump operation. The measurement was determined from heat balance data taken at 100% of rated thermal power. The uncertainty on the result is $\pm$2.09%. (This uncertainty was obtained on page 25 of Attachment 1 to Toledo Edison Company letter dated May 26, 1978, Serial No. 436. The value of $\pm$2.09% corresponds to the heat balance data only and does not include the uncertainty from the Gentile flow rates.)

In the analysis of the reactor coolant system total pressure drop the averaged reactor coolant pump head-flow (H-Q) curve was used. This curve was determined from hot performance data taken with each of the four Davis-Besse pumps. From this curve and from the flow rate and uncertainties, the results shown in the following table were obtained.

7901190080

A001
S 1/0

Flow Rate Condition	System Pressure Drop (Feet) After BPRA and ORA Removal	Before BPRA and ORA Removal
Measured Flow Rat-	334	338
Measured Flow Rate Plus Uncertainty	326	331
Measured Flow Rate Minus Uncertainty	342	344

Results before BPRA and ORA removal, as given in our April 24, 1978 letter are also shown in the above table. The measured flow rate for the information given in the April 24, 1978 letter was determined from heat balance data taken at 90% power. A flow rate equal to (113.4 $\pm$ 2) % of the design flow rate was obtained. It should be noted that the uncertainty on this value was revised by the analysis given in our letter on May 26, 1978, Serial No. 436.

Toledo Edison considers the above information to be a sufficient and satisfactory response to the commitment in our May 26, 1978 letter to supply additional information on flow data and total pressure drops.

Yours very truly,

Lowell E. Roe

LER:RES
bj a/1-2